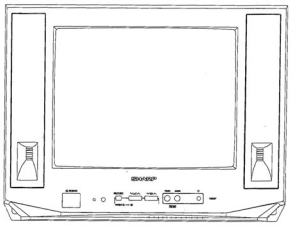
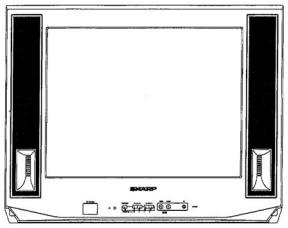
# SHARP SERVICE MANUAL

No. S74Y214R2F///



14R2F



21R2F

# MODELS 14R2F 21R2F

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

## FEATURES

- Multi 18 systems
- Full Auto Channel Search System
- 100-CH Program Memory
- CATV(Hyper Band) Ready <Used Frequency Synthesizer Tuner>
- AVL(Sound Keeper) Function
- High Contrast Picture(Black Stretch Circuit)
- On Timer/OFF Timer/Reminder Timer
- Blue Back Noise Mute
- Front AV-In & Rear AV-In/Out Terminals (Front Priority)
- Colour Comb Filter(NTSC only)
- Headphone Terminal
- Hotel Mode
- Multi Languages OSD (Arabic/Chinese/English/French/Malay/Russian)
- White Temperature Select

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**Parts Guide**


**WARNING**

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user - serviceable parts inside. Refer servicing to qualified service personnel.


SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

# CHAPTER 1. SPECIFICATIONS

## [1] SPECIFICATIONS

| | |
|---|---|
| Convergence | Self Convergence System |
| Focus | Electrostatic Focus High Bi-Potential |
| Sweep Deflection | Magnetic |
| Intermediate Frequencies | |
| Picture IF Carrier | 38.9MHz |
| Sound IF Carrier Frequency | |
| 6.5MHz | 32.4MHz |
| 6.0MHz | 32.9MHz |
| 5.5MHz | 33.4MHz |
| Colour Sub-Carrier Frequency | 34.47MHz |
| Power Input | 110 ~ 240V AC 50/60 Hz |
| Power Consumption | |
| 14R2F | 62W |
| 21R2F | 79W |
| Audio Power Output Rating | 5.0W(at Max.) |
| Speaker | |
| Size | 5 x 9 cm Elliptic (2 pcs) |
| Voice Coil Impedance | 16 ohms at 400 Hz |
| Aerial Input Impedance | |
| VHF/UHF | 75 ohms Unbalanced |
| Receiving System | PAL-B/G,D/K,I SECAM-B/G,D/K,K1 |
| Tuner Ranges | |
| VHF-Channels | E2(48.25MHz) thru E12(224.25MHz)<br>C1(49.75MHz) thru C12(216.25 MHz)<br>S1(105.25MHz) thru S36(423.25HMz) |
| UHF-Channels | E21(471.25MHz) thru E69(855.25MHz)<br>C13(471.25MHz) thru C57(863.25MHz)<br>S37(431.25MHz) thru S41(463.25MHz) |
| Dimensions | |
| 14R2F | Width: 447.0mm<br>Height: 337.0mm<br>Depth: 365.0mm<br>Weight(approx): 9.5 kg |
| 21R2F | Width: 594.0mm<br>Height: 465.0mm<br>Depth: 473.5mm<br>Weight(approx): 21.5 kg |
| Cabinet material | All Plastics |

*Specifications are subject to change without prior notice*

# CHAPTER 2. IMPORTANT SERVICE NOTES

## [1] IMPORTANT SERVICE NOTES

**Maintenance and repairing of this receiver should be done by qualified service personnel only.**

### 1. SERVICE OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by Connecting a 10K ohm Resistor in series with an insulated wire(such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1) Picture tube in this receiver employs integral implosion protection.
2) Replace with tube of the same type number for continued safety.
3) Do not lift picture tube by the neck.
4) Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

### 2. X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1) 14R2F: When repairing the circuit, be sure not to increase the high voltage to more than 25.2kV(at beam 0μA) for the set.

   21R2F: When repairing the circuit, be sure not to increase the high voltage to more than 28.0kV(at beam 0μA) for the set.
2) 14R2F: To keep the set in a normal operation, be sure to make it function on 22.7kV±1.5kV(at beam 800μA) in the case of the set.

   21R2F: To keep the set in a normal operation, be sure to make it function on 24.8kV±1.5kV(at beam 1100μA) in the case of the set.

   The set has been factory - Adjusted to the above mentioned high voltage.

   *If there is a possibility that the high voltage fluctuates as a result of the repairing, never forget to check for such high voltage after the work.
3) Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.

### 3. BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1) Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2) Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor- capacity networks, mechanical insulators etc.

# CHAPTER 3. ADJUSTMENT PRECAUTIONS

## [1] ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: through the I2C bus control and in the conventional analog manner. The adjustments via the I2C bus control include preset-only items and variable data.

CAUTION: Make sure TV set is in "Normal condition" before switch to Service Mode for adjustment.

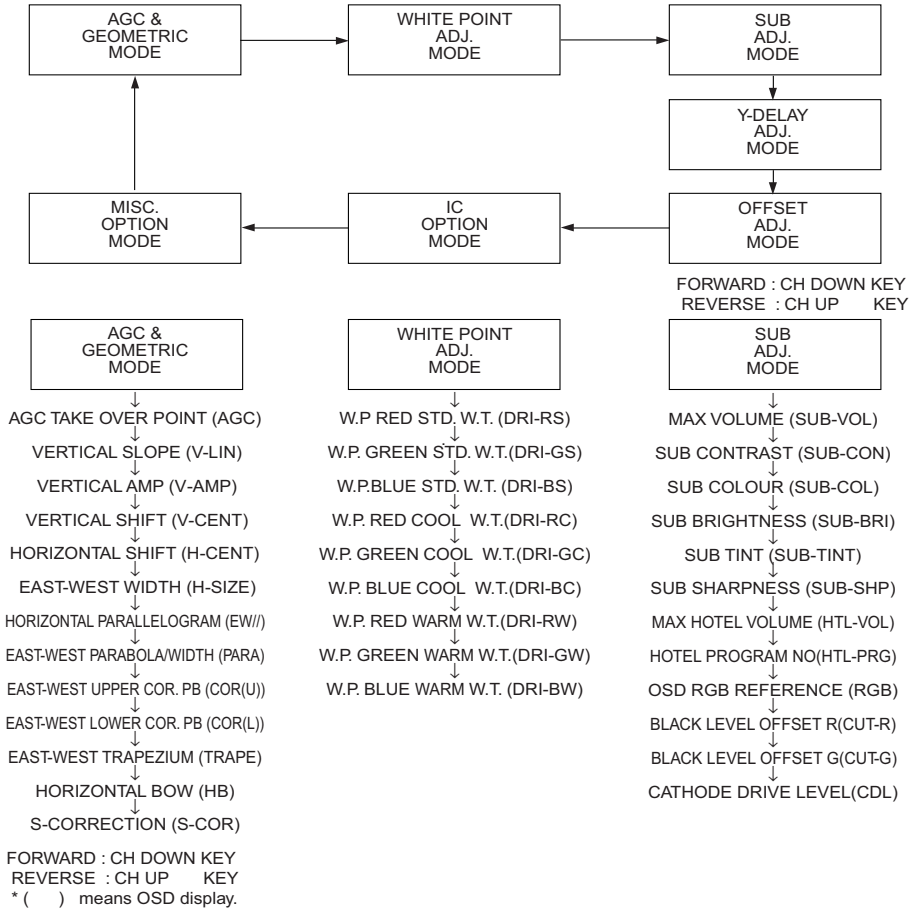
1. Setting the service mode by the microprocessor.
   - i) Short JA 137 & JA 138 for 1second and release to switch to the service mode position, and the microprocessor is in input mode. (Adjustment through the I2C bus control).
   - ii) Press the CH DOWN / UP key on the remote controller to get ready to select the mode one by one.
   - iii) Press the CH DOWN / UP key on the remote controller to select the modes reversibly one by one.
   - iv) Using the VOLUME UP / DOWN key on the remote controller, the data can be modified.
   - v) Short JA 137 & JA 138 for 1 second and release to switch to the normal mode position, and the microprocessor is in out of the service mode.
2. Factory Presetting.
   - i) Short JA 137 & JA 138, then tum on the main power and release to switch to the Service Mode position.Initial values are automatically preset, only when a new EEPROM is used (Judge with the first 4 bytes).
   - ii) The initial data are preset as listed in page 5.
   - iii) Make sure the data need modification or not (Initial data).

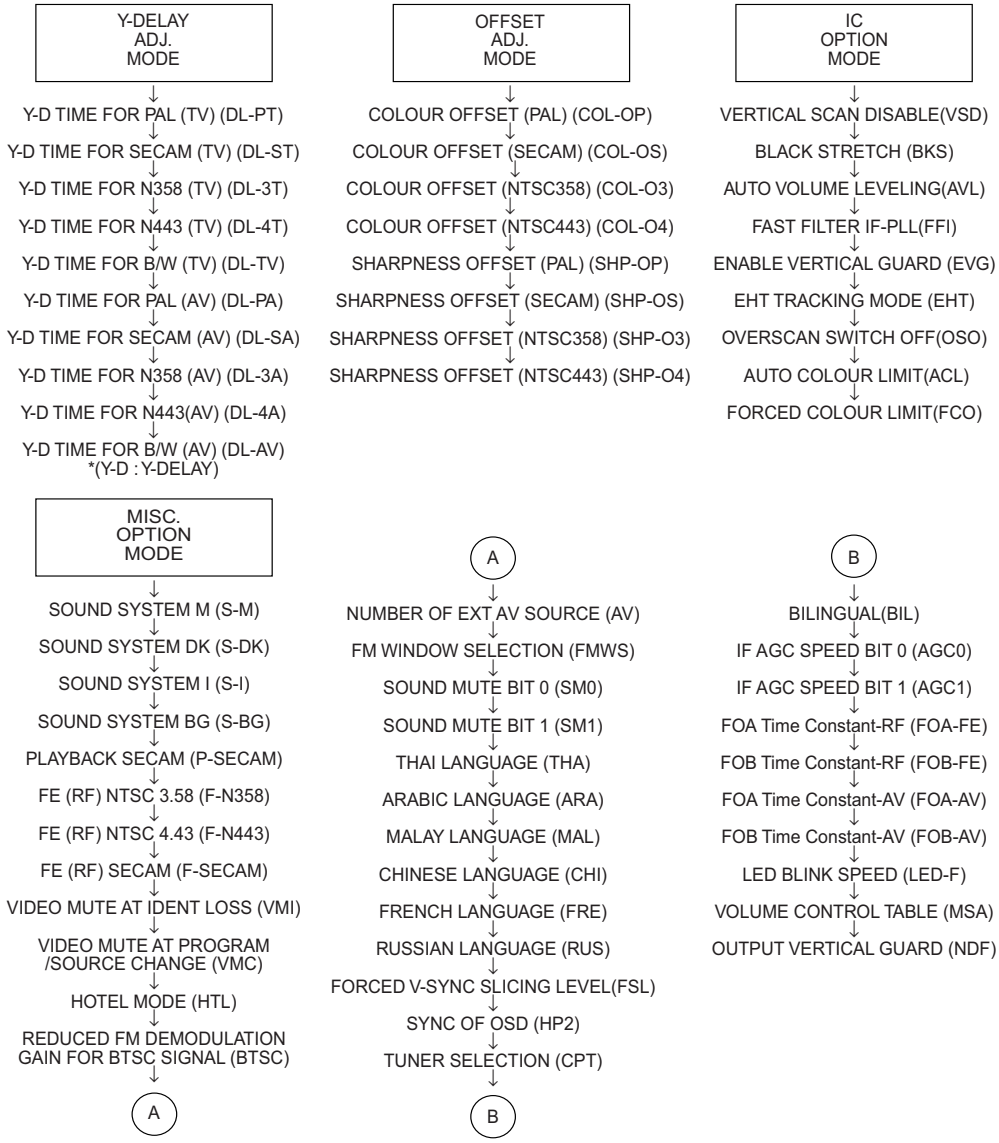
     **Note:**

     **Once the chassis has been assembly together and ready to be POWER ON for the FIRST TIME, make sure to short JA 137 & JA 138 to switch to the service mode position first and then tum on the main power switch (See 2-i above).**
3. For reference please check with memory map (GA-1 Series type RH-iX3368CEN9)

### 1. SERVICE MODE

In the Service Mode, Key is used to select the mode in the following order




Y-DELAY ADJ. MODE
Y-D TIME FOR PAL (TV) (DL-PT)
Y-D TIME FOR SECAM (TV) (DL-ST)
Y-D TIME FOR N358 (TV) (DL-3T)
Y-D TIME FOR N443 (TV) (DL-4T)
Y-D TIME FOR B/W (TV) (DL-TV)
Y-D TIME FOR PAL (AV) (DL-PA)
Y-D TIME FOR SECAM (AV) (DL-SA)
Y-D TIME FOR N358 (AV) (DL-3A)
Y-D TIME FOR N443(AV) (DL-4A)
Y-D TIME FOR B/W (AV) (DL-AV)
*(Y-D : Y-DELAY)
OFFSET ADJ. MODE
COLOUR OFFSET (PAL) (COL-OP)
COLOUR OFFSET (SECAM) (COL-OS)
COLOUR OFFSET (NTSC358) (COL-O3)
COLOUR OFFSET (NTSC443) (COL-O4)
SHARPNESS OFFSET (PAL) (SHP-OP)
SHARPNESS OFFSET (SECAM) (SHP-OS)
SHARPNESS OFFSET (NTSC358) (SHP-O3)
SHARPNESS OFFSET (NTSC443) (SHP-O4)
IC OPTION MODE
VERTICAL SCAN DISABLE(VSD)
BLACK STRETCH (BKS)
AUTO VOLUME LEVELING(AVL)
FAST FILTER IF-PLL(FFI)
ENABLE VERTICAL GUARD (EVG)
EHT TRACKING MODE (EHT)
OVERSCAN SWITCH OFF(OSO)
AUTO COLOUR LIMIT(ACL)
FORCED COLOUR LIMIT(FCO)
MISC. OPTION MODE
SOUND SYSTEM M (S-M)
SOUND SYSTEM DK (S-DK)
SOUND SYSTEM I (S-I)
SOUND SYSTEM BG (S-BG)
PLAYBACK SECAM (P-SECAM)
FE (RF) NTSC 3.58 (F-N358)
FE (RF) NTSC 4.43 (F-N443)
FE (RF) SECAM (F-SECAM)
VIDEO MUTE AT IDENT LOSS (VMI)
VIDEO MUTE AT PROGRAM /SOURCE CHANGE (VMC)
HOTEL MODE (HTL)
REDUCED FM DEMODULATION GAIN FOR BTSC SIGNAL (BTSC)
A
A
NUMBER OF EXT AV SOURCE (AV)
FM WINDOW SELECTION (FMWS)
SOUND MUTE BIT 0 (SM0)
SOUND MUTE BIT 1 (SM1)
THAI LANGUAGE (THA)
ARABIC LANGUAGE (ARA)
MALAY LANGUAGE (MAL)
CHINESE LANGUAGE (CHI)
FRENCH LANGUAGE (FRE)
RUSSIAN LANGUAGE (RUS)
FORCED V-SYNC SLICING LEVEL(FSL)
SYNC OF OSD (HP2)
TUNER SELECTION (CPT)
B
B
BILINGUAL(BIL)
IF AGC SPEED BIT 0 (AGC0)
IF AGC SPEED BIT 1 (AGC1)
FOA Time Constant-RF (FOA-FE)
FOB Time Constant-RF (FOB-FE)
FOA Time Constant-AV (FOA-AV)
FOB Time Constant-AV (FOB-AV)
LED BLINK SPEED (LED-F)
VOLUME CONTROL TABLE (MSA)
OUTPUT VERTICAL GUARD (NDF)

*Direct Key-in Mode for service Items in Service Mode.

| RC CODE (HEX) | R/C KEY NAME | SERVICE-ITEM |
|---|---|---|
| FA | FUNCTION | AGC |
| C4 | CONTRAST DOWN | V-LIN |
| A4 | COLOUR DOWN | V-AMP |
| 54 | BRIGHTNESS DOWN | V-CENT |
| 74 | TINT DOWN | H-CENT |
| 8D | SHARPNESS DOWN | EW / / |
| F6 | S-SYSTEM | HB |
| DC | BLUEBACK | S-COR |
| CA | TIMER | SUB-VOL |
| 44 | CONTRAST UP | SUB-CON |
| 24 | COLOUR UP | SUB-COL |
| 94 | BRIGHTNESS UP | SUB-BRI |
| B4 | TINT UP | SUB-TINT |
| 0D | SHARPNESS UP | SUB-SHP |

AFTER SHORT JA137 & JA138, AND TURN ON THE MAIN POWER SWITCH, READ DATA FROM EEPROM ADDRESS 00H ~ 03H, AND COMPARE TO THE LIST BELOW, IF DIFFERENT, INITIALIZE THE EEPROM.

| ADDRESS | DATA | ADDRESS | DATA |
|---|---|---|---|
| 00H: | 55H | 02H: | 43H |
| 01H: | 4FH | 03H: | A1H |

| SERVICE ITEMS | OSD | DATA LENGTH | INITIAL DATA | FIX/ADJ | REMARKS |
|---|---|---|---|---|---|
| AGC TAKE OVER POINT | AGC | 0~63 | 14 | ADJ | |
| VERTICAL SLOPE | V-LIN | 0~63 | 32 | ADJ | |
| VERTICAL AMPLITUDE | V-AMP | 0~63 | 32 | ADJ | |
| VERTICAL SHIFT | V-CENT | 0~63 | 32 | ADJ | |
| HORIZONTAL SHIFT | H-CENT | 0~63 | 32 | ADJ | |
| EAST-WEST WIDTH | H-SIZE | 0~63 | 32 | *FIX | |
| HORIZONTAL PARALLELOGRAM | EW// | 0~63 | 32 | *FIX | |
| EAST-WEST PARABOLA/WIDTH | PARA | 0~63 | 32 | *FIX | |
| EAST-WEST UPPER CORNER PARABOLA | COR(U) | 0~63 | 32 | *FIX | |
| EAST-WEST LOWER CORNER PARABOLA | COR(L) | 0~63 | 32 | *FIX | |
| EAST-WEST TRAPEZIUM | TRAPE | 0~63 | 32 | *FIX | |
| HORIZONTAL BOW | HB | 0~63 | 32 | *FIX | |
| S-CORRECTION | S-COR | 0~63 | 0 | ADJ | *3 |
| WHITE POINT RED STD WHITE TEMP | DRI-RS | 0~63 | 32 | *FIX | |
| WHITE POINT GREEN STD WHITE TEMP | DRI-GS | 0~63 | 32 | ADJ | |
| WHITE POINT BLUE STD WHITE TEMP | DRI-BS | 0~63 | 32 | ADJ | |
| WHITE POINT RED COOL WHITE TEMP | DRI-RC | 0~63 | 25 (27) | *FIX | |
| WHITE POINT GREEN COOL WHITE TEMP | DRI-GC | 0~63 | 32 | ADJ | SAME AS (DRI-GS) - 5 |
| WHITE POINT BLUE COOL WHITE TEMP | DRI-BC | 0~63 | 32 | ADJ | SAME AS (DRI-BS) DATA |
| WHITE POINT RED WARM WHITE TEMP | DRI-RW | 0~63 | 32 | *FIX | |
| WHITE POINT GREEN WARM WHITE TEMP | DRI-GW | 0~63 | 32 | ADJ | SAME AS (DRI-GS) - 7 |
| WHITE POINT BLUE WARM WHITE TEMP | DRI-BW | 0~63 | 32 | ADJ | SAME AS (DRI-BS) - 7 |
| MAX VOLUME | SUB-VOL | 0~63 | 63 | *FIX | |
| SUB CONTRAST | SUB-CON | 0~63 | 63 | ADJ | *5 |
| SUB COLOUR | SUB-COL | 0~63 | 32 | ADJ | |
| SUB BRIGHTNESS | SUB-BRI | 0~63 | 32 | ADJ | |
| SUB TINT | SUB-TINT | 0~63 | 32 | ADJ | |
| SUB SHARPNESS | SUB-SHP | 0~63 | 32 (20) | *FIX | |
| MAX HOTEL VOLUME | HTL-VOL | 0~63 | 32 | *FIX | |
| HOTEL PROGRAM NUMBER | HTL-PRG | 0~99 OR>99FOR NONE | 255 | *FIX | |
| OSD RGB REFERENCE | RGB | 0~15 | 15 | ADJ | *6 |
| BLACK LEVEL OFF-SET R | CUT-R | 0~63 | 32 | ADJ | |
| BLACK LEVEL OFF-SET G | CUT-G | 0~63 | 32 | ADJ | |
| CATHODE DRIVE LEVEL | CDL | 0~15 | 0 | ADJ | *2 |
| Y-DELAY TIME FOR PAL(TV) [YD] | DL-PT | 0~15 | 12 | *FIX | |
| Y-DELAY TIME FOR SECAM(TV) [YD] | DL-ST | 0~15 | 15 | *FIX | |
| Y-DELAY TIME FOR N358 (TV) [YD] | DL-3T | 0~15 | 12 | *FIX | |
| Y-DELAY TIME FOR N443 (TV) [YD] | DL-4T | 0~15 | 12 | *FIX | |
| Y-DELAY TIME FOR B/W (TV) [YD] | DL-TV | 0~15 | 12 | *FIX | |
| Y-DELAY TIME FOR PAL (AV) [YD] | DL-PA | 0~15 | 12 | *FIX | |
| Y-DELAY TIME FOR SECAM (AV) [YD] | DL-SA | 0~15 | 15 | *FIX | |
| Y-DELAY TIME FOR N358 (AV) [YD] | DL-3A | 0~15 | 12 | *FIX | |
| Y-DELAY TIME FOR N443 (AV) [YD] | DL-4A | 0~15 | 12 | *FIX | |
| Y-DELAY TIME FOR B/W (AV) [YD] | DL-AV | 0~15 | 12 | *FIX | |
| COLOUR OFFSET (PAL) | COL-OP | 0~15 | 8 | ADJ | *4 |
| COLOUR OFFSET (SECAM) | COL-OS | 0~15 | 8 | ADJ | *4 |

| EEPROM ITEMS | OSD | DATA LENGTH | INITIAL DATA | FIX/ADJ | REMARKS |
|---|---|---|---|---|---|
| COLOUR OFFSET (NTSC358) | COL-O3 | 0~15 | 4 | ADJ | *4 |
| COLOUR OFFSET (NTSC443) | COL-O4 | 0~15 | 4 | ADJ | *4 |
| SHARPNESS OFFSET (PAL) | SHP-OP | 0~15 | 8 | *FIX | |
| SHARPNESS OFFSET (SECAM) | SHP-OS | 0~15 | 4 | *FIX | |
| SHARPNESS OFFSET (NTSC358) | SHP-O3 | 0~15 | 12 (8) | *FIX | |
| SHARPNESS OFFSET (NTSC443) | SHP-O4 | 0~15 | 8 | *FIX | |
| VERTICAL SCAN DISABLE | VSD | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| BLACK STRETCH | BKS | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| AUTOMATIC VOLUME LEVELING | AVL | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| FAST FILTER IF-PLL | FFI | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| ENABLE VERTICAL GUARD (RGB BLANKING) | EVG | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| EHT TRACKING MODE (HCO) | EHT | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| OVERSCAN SWITCH OFF | OSO | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| AUTO COLOUR LIMIT | ACL | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| FORCED COLOUR LIMIT | FCO | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| SOUND SYSTEM M | S-M | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| SOUND SYSTEM DK | S-DK | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| SOUND SYSTEM I | S-I | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| SOUND SYSTEM BG | S-BG | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| PLAYBACK SECAM | P-SECAM | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| FE (RF) NTSC 3.58 | F-N358 | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| FE (RF) NTSC 4.43 | F-N443 | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| FE (RF) SECAM | F-SECAM | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| VIDEO MUTE AT IDENT LOSS | VMI | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| VIDEO MUTE AT PROGRAM/SOURCE CHANGE | VMC | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| HOTEL MODE | HTL | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| REDUCED FM DEMODULATOR GAIN FOR BTSC SIGNAL | BTSC | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| NUMBER OF EXTERNAL AV SOURCE | AV | 0 FOR 1AV/1 FOR 2AV | 1 (0) | *FIX | |
| FM WINDOW SELECTION | FMWS | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| SOUND MUTE BIT 0 | SM0 | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| SOUND MUTE BIT 1 | SM1 | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| THAI LANGUAGE | THA | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| ARABIC LANGUAGE | ARA | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| MALAY LANGUAGE | MAL | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| CHINESE LANGUAGE | CHI | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| FRENCH LANGUAGE | FRE | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| RUSSIAN LANGUAGE | RUS | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| FORCED V-SYNC SLICING LEVEL | FSL | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| SYNC OF OSD | HP2 | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| TUNER SELECTION (0:SHARP/ALPS;1:MURATA) | CPT | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| BILINGUAL | BIL | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| IF AGC SPEED BIT 0 | AGC0 | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| IF AGC SPEED BIT 1 | AGC1 | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| PHI 1 TIME CONSTANT (RF) | FOA-FE | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| PHI 1 TIME CONSTANT (RF) | FOB-FE | 0(DISABLE)/1(ENABLE) | 0 | *FIX | |
| PHI 1 TIME CONSTANT (OFF AIR) | FOA-AV | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| PHI 1 TIME CONSTANT (OFF AIR) | FOB-AV | 0(DISABLE)/1(ENABLE) | 1 | *FIX | |
| LED BLINK SPEED | LED_F | 0(DISABLE)/1(ENABLE) | 0 (1) | *FIX | |
| VOLUME CONTROL PWM TABLE | MSA | 0(DISABLE)/1(ENABLE) | 0 (1) | *FIX | |
| OUTPUT VERTICAL GUARD | NDF | 0(DISABLE)/1(ENABLE) | 0 (1) | *FIX | |

**NOTE:**

1) *FIX: PLEASE DO NOT CHANGE FIXED DATA WITHOUT SPECIFIC INSTRUCTION.

   Please set the EEPROM initial data according to the value in parenthesis ( ) before adjustment.

2) *2: CDL ADJUST = ( 7 FOR 21" ) AND ( 5 FOR 14" ).

3) *3: S-COR ADJUST = ( 20 FOR 21" ) AND ( 17 FOR 14" ).

4) *4: ADJUST COLOUR OFFSET AFTER ADJUST SUB-COLOUR.

| | | |
|---|---|---|
| COLOUR OFFSET ( PAL ) | COL-OP | : 8 ------> 14 |
| COLOUR OFFSET ( SECAM ) | COL-OS | : 8 ------> 14 |
| COLOUR OFFSET ( NTSC358 ) | COL-03 | : 4 ------> 10 |
| COLOUR OFFSET ( NTSC443 ) | COL-04 | : 4 ------> 10 |

5) *5: SUB-CON = ( 63 FOR 21" ) AND ( 52 FOR 14" )

6) *6: RGB = ( 15 FOR 21" ) AND ( 6 FOR 14" )

## 2. INITIAL SHIPPING SETTING

1) Please set to MCL1 for all models.

2) After set the MCL , please set the INITIAL SETTING for each models.

INITIAL4: For Middle-East (All Channel Sound System are set to B/G)

| MCL1 (HEX AE) | | |
|---|---|---|
| **CH-NO** | **Fv (MHz)** | **SOUND SYS** |
| 0 | | |
| 1 | 48.25 | B/G |
| 2 | 62.25 | B/G |
| 3 | 77.25 | D/K |
| 4 | 175.25 | B/G |
| 5 | 182.25 | B/G |
| 6 | 183.25 | D/K |
| 7 | 191.25 | D/K |
| 8 | 196.25 | B/G |
| 9 | 199.25 | M |
| 10 | 210.25 | B/G |
| 11 | 224.25 | B/G |
| 12 | 471.25 | B/G |
| 13 | 487.25 | I |
| 14 | 503.25 | B/G |
| 15 | 575.25 | B/G |
| 16 | 583.25 | B/G |
| 17 | 599.25 | B/G |
| 18 | 621.25 | M |
| 19 | 639.25 | D/K |
| 20 | 703.25 | B/G |
| 21 | 735.25 | I |
| 22 | 767.25 | B/G |
| 23 | 815.25 | B/G |
| 24 | 855.25 | I |
| 25 | 855.25 | B/G |
| 26 | 55.25 | M |
| 27 | 83.25 | M |
| 28 | 183.25 | M |
| 29 | 193.25 | M |
| 30 | 217.25 | M |
| 31 | 471.25 | M |
| 32 | 477.25 | M |
| 33 | 693.25 | M |
| 34 | 41.1 | |
| 35 | 112.25 | B/G |
| 36 | 168.25 | B/G |
| 37 | | |
| 38 | 294.25 | B/G |
| 39 | 463.25 | B/G |
| 40 | | |
| 41 | 647.25 | B/G |
| 42 | 663.25 | B/G |
| 43 | 679.25 | B/G |
| 44 | 174.95 | B/G |
| 45 | 175.55 | B/G |
| 46 | | |
| | | |

## 3. SHIPPING SETTING & CHECKING

1) The following default data has been factory-set for the E2PROM follow by INITIAL DATA selected.

| ITEMS | DATA SETTING |
|---|---|
| LAST PROGRAM/CHANNEL | 1 |
| FLASHBACK PROGRAM/CH | 1 |
| CHANNEL ENTRY DIGIT NUMBER | 1 |
| C-SYSTEM | AUTO |
| S-SYSTEM | *1 |
| SKIP | OFF |
| AFC | ON |
| VOLUME | 1 |
| CONTRAST | MAX |
| COLOUR | CENTER |
| BRIGHTNESS | CENTER |
| TINT | CENTER |
| SHARPNESS | CENTER |
| WHITE TEMP | STANDARD |
| REMINDER TIMER | In-active, "--:--" |
| ON TIMER | In-active, "--:--" |
| OFF TIMER | In-active, "--:--" |
| LAST POWER | POWER-ON |
| LANGUAGE | *1 |
| BLUE BACK MUTE | ON |
| HOTEL MODE | OFF |
| 0 CHANNEL SKIP | ON |
| LAST TV/AV | TV |

*1: Please refer defaults for LANGUAGE and SOUND SYSTEM per MODEL as follows,

| INITIAL | LANGUAGE | SOUND SYSTEM |
|---|---|---|
| 4 | ARABIC | B/G |

**FACTORY SETTING BY MODEL**

(Reference: Geomagnetism Adjustment)

| MAGNETIC FIELD(V, H) nT | BACK-GROUND | LANG. | S-SYS | LANG QTY |
|---|---|---|---|---|
| 30,000 20,000 | 18000K | ARABIC | B/G | 6 |

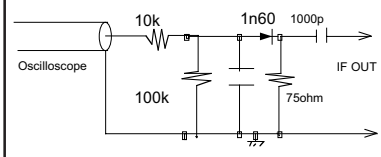
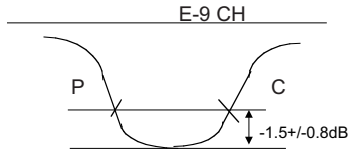
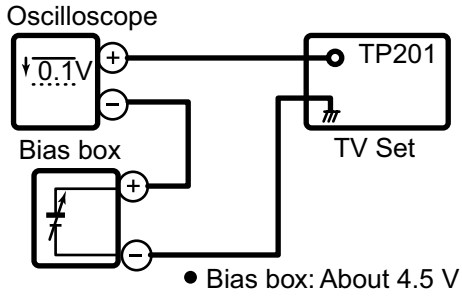
*NOTE FOR OSD TYPE

6: ENGLISH/CHINESE/FRENCH/RUSSIAN/ARABIC/MALAY

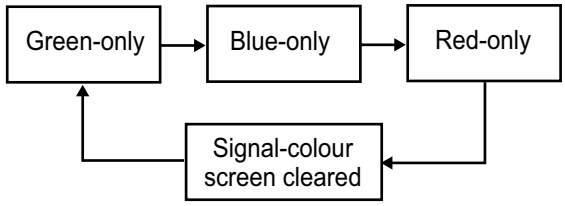
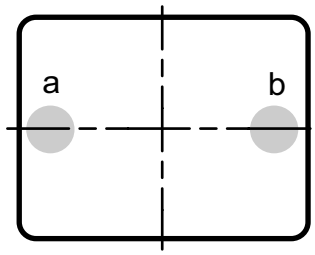
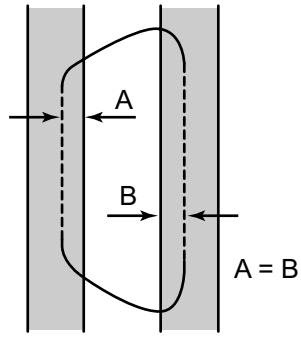
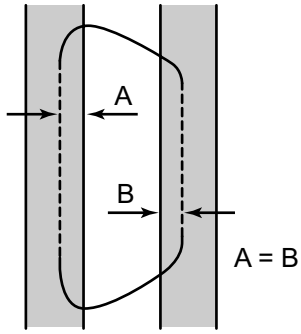
**ADJUSTMENT PRECAUTIONS:** Make sure TV set is in “Normal Condition” before switch to Service Mode for adjustment.

## [2] ADJUSTMENT

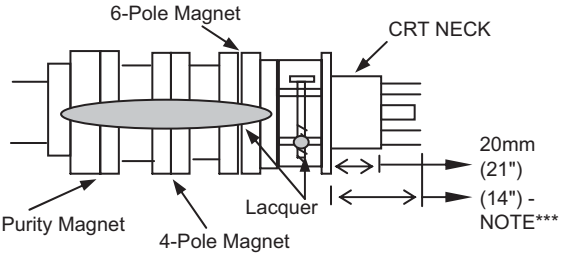
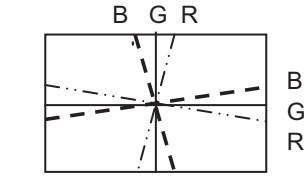
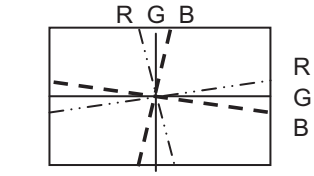
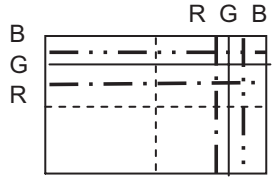
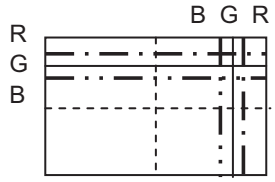
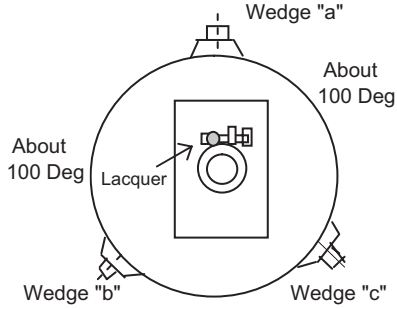
### 1. PIF ADJUSTMENT

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **Tuner IFT ( PRESET )** | 1. Get the tuner ready to receive the CH. E - 9 signal,but with no signal input. Adjust the PLL data.<br>2. Connect the sweep generator's output cable to the tuner antenna. ( RF SWEEP )<br>3. Adjust the sweep generator's to 80dBuV.<br>4. Connect the response lead ( use LOW IMPEDANCE probe with wave detector ; see Fig.1 ) to the tuner's IF output terminal. ( This terminal must have the probe alone connected ).<br>5. Set the RF AGC to 0 - 6 V with no saturation with the waveform.<br>6. Adjust the tuner IF coil to obtain the waveform as shown in Fig. 2.<br><br>**Note: Be sure to keep the tuner cover in position during this adjustment.** |  <br>Fig.1<br>  <br>Fig.2 |
| 2 | **RF-AGC TAKE OVER POINT ADJUSTMET (I²C BUS CONTROL)** | 1. Receive "PAL COLOUR BAR" signal.<br>● Signal Strength: 57 ± 1 dBμV (75 ohm open)<br>2. Connect the oscilloscope to TP201 (Tuner's AGC Terminal) as shown in Fig. 3.<br>  <br>Fig. 3<br>3. Call "AGC" mode in service mode. Adjust the "AGC" bus data to obtain the Tuner output pin drop 0.1V below maximum voltage.<br>4. Change the antenna input signal to 63~67dBμV, and make sure there is no noise.<br>5. Turn up the input signal to 90~95 dBμV to be sure that there is no cross modulation beat. | **Note: For the 50 ohm signal strength gauge, when not using 50/75 impedance adapter, signal strength is 52±1dBμV(75 ohm open), instead of 57±1dBμV (75 ohm open).**<br>**Precaution: The loss of using impedance adapter** |

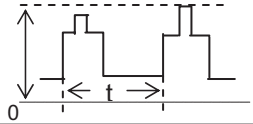
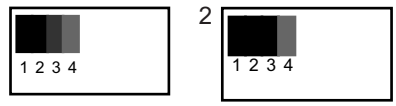
## 2. PURITY ADJUSTMENT

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **PURITY ADJ.** | 1. Receive the GREEN-ONLY signal. Adjust the beam current to about 700 μA (21") and about 500μA (14").<br>2. Degauss the CRT enough with the degausing coil.<br>3. Maintain the purity magnet at the zero magnetic field and keep the static convergence roughly adjusted.<br>4. Observe the points a, b as shown in Fig. 4-1 through the microscope. Adjust the landing to the rank A requirements.<br>5. Orient the raster rotation to 0 eastward.<br>6. Tighten up the deflection coil screws.<br>● Tightening torque: 108 ± 20 N (11 ± 2 kgf)<br>7. Make sure the CRT corners landing meet the A rank requirements. If not, stick the magnet sheet to correct it.<br><br>**Note: This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 700 μA (for 21") and over 500 μA (for 14").**<br><br>* For the following colours press R/C RGB key to change.<br><br>Fig. 4-3<br>  <br> |  <br><br>Fig. 4-1<br>  <br><br>Fig. 4-2<br>Rank "A"<br>(on the right of the CRT)<br>  <br><br>Rank "A"<br>(on the left of the CRT)<br><br>* Press R/C RGB key for 1 second in NORMAL MODE, the colour will change to RGB mono colour mode. |

## 3. CONVERGENCE ADJUSTMENT

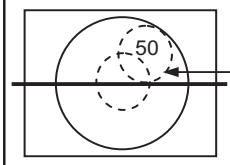
| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **CONVERGENCE ADJ( To be done after the purity adjustment)** | 1. Receive the "Crosshatch Pattern" signal.<br>2. Using the remote controller, call NORMAL mode.<br>**( Static convergence )**<br>1. Turn the 4 - pole magnet to a proper opening angle in order to superpose the blue and red colours.<br>2. Turn the 6 - pole magnet to a proper opening angle in order to superpose the green colour over the blue and red colours.<br>**( Dynamic convergence )**<br>1. Adjust the convergence on the fringes of the screen in the following steps.<br>a) Fig. - a :<br>Drive the wedge at point " a " and swing the deflection coil upward.<br>b) Fig. - b :<br>Drive the wedge at point " b " and " c " and swing the deflection coil downward.<br>c) Fig. - c :<br>Drive the " c " wedge deeper and swing the deflection coil rightward.<br>d) Fig. - d :<br>Drive the " b " wedge deeper and swing the deflection coil leftward.<br>2. Fix all the wedges on the CRT and apply glass tape over them.<br>3. Apply lacquer to the deflection yoke lock screw, magnet unit ( purity, 4 - pole, 6 - pole magnets ) and magnet unit lock screw.<br>Finally received the Red - only and Blue - only signals to make sure there is no other colours on the screen.<br>  <br><br>NOTE***<br>SAMSUNG 32 mm<br>CPT 35 mm<br>TOSHIBA 35 mm |  <br><br>Fig. a.<br>  <br><br>Fig. b.<br>  <br><br>Fig. c.<br>  <br><br>Fig. d.<br>  <br> |

## 4. CUT OFF, BKGD, SUB-CONT (1) ADJUSTMENT

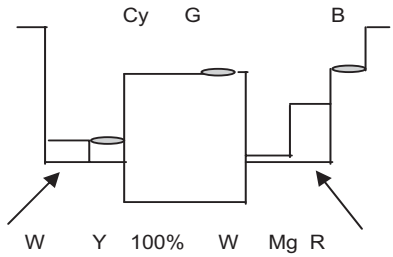
| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **CRT CUTOFF ADJUSTMENT (I²C BUS CONTROL)** | **Remarks**<br>**1. Before CRT cutoff adjustment, SUB-BRIGHT, DRI-RS/RW/RC, DRI-GS/GW/GC, DRI-BS/BW/BC, CUT-R and CUT-G must be INITIAL DATA.**<br>**2. CRT Cutoff adjustment must be done inside a dark room.**<br>(1) Switch TV to video mode , blue back off , with no video signal.<br>(2) Press R/C to set picture normal condition.<br>(3) First , off the screen by adjust screen variable resistor.<br>*(4) Next , checking AKB circuit function by slowly increase screen variable resistor until colour raster suddenly on and off ( AKB start function ).<br>(5) Then continue adjust until retrace line appear.<br>(6) Finally , slowly decrease the screen variable resistor until screen retrace line cut off. ( Not Raster )<br>**NOTE:**<br>Must confirm the AKB function in set before continue the next adjustment. | *Alternative Procedure<br>(1) Steps (1), (2), (3) and (4) are same as beside procedure.<br>(2) Then continue adjust until retrace line appear and make sure the colour appear whether red, green or blue.<br>(3) Connect the oscilloscope to related test points as below which is based on colour appear at (2)<br>RED=TP47R,<br>GREEN=TP47G,<br>BLUE=TP47B<br>(4) Then adjust Screen VR until the tip of signal reach 3.2Vdc for 21", 3.3Vdc for 14".<br>3.2Vdc (21"), 3.3Vdc (14")<br>  <br> |
| 2 | **SUB-BRIGHTNESS ADJUSMENT (I²C BUS CONTROL)** | 1. Call " SUB-BRI" in service mode. (Receive Cross-hatch pattern with 4 black level windows)<br>2. Adjust the " SUB BRIGHT " bus data in order that the line 1and 2 have the same darkness wherelse line 3 is one step (data) brighter than line 2. Finally data minus 1 to make line 1, 2, and 3 are in same level (darkness). |  <br><br>Line 3 is one step (data) brighter than line 2 |
| 3 | **WHITE BALANCE SERVICE MODE ADJ (I²C BUS CONTROL)** | 1. Receive the "WHITE" pattern with BURST signal.<br>3. Press R/C to set Picture NORMAL condition.<br>2. Set LUMINANCE Y by generator to (HIGH BRIGHT) (MINOLTA CA-100).<br>4. Connect the DC miliammeter between the TP 602 ( - ) TP 603 ( + ).<br>5. Check Beam current should be around 1100μA (21") and 800μA (14").<br>6. Set it to service mode and adjust the DRI-GS, & DRI-BS data to have a colour temperature of 18000°K (x=255, y=255).<br>(Data can be UP/DOWN) by VOLUME key)<br>(Please refer to page 9 for colour temperature details)<br>7. Set LUMINANCE Y by generator to 10cd/m2 (LOW BRIGHT) (MINOLTA CA-100).<br>8. Adjust "CUT-R" & "CUT-G" to get desired colour temperature (18000° K). Then go back to (HIGH BRIGHT) to check colour temperature. If out of range, back to (1).<br>**Note:** This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 700μA (21").<br>(For 14", the beam current should be over 500μA)<br>*ADJUST DRI-GC/GW, DRI-BC/BW as following DATA, after finishing DRI-BS and DRI-GS DATA ADJUSTMENT.<br>DRI-RS = 32 ( FIXED )<br>DRI-RC=27, DRI-GC ="DRI-GS" -5, DRI-BC = "DRI-BS"<br>DRI-RW = 32 ( FIXED ), DRI-GW="DRI-GS" -7, DRI-BW="DRI-BS" -7 | (MINOLTA COLOUR ANALYZER CA-100)<br>(LOW BRIGHT) (HIGH BRIGHT)<br>14" 10cd/m2 200cd/m2<br>21" 10cd/m2 120cd/m2 |

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 4 | **Max beam check** | 1. Receive the "Monoscope Pattern" signal.<br>2. Press R/C to set Picture NORMAL condition.<br>3. Connect the DC miliammeter between TP603 (+) & TP602 (–).<br>(Full Scale: 3 mA Range)<br>4. Beam current must be within 1100 ± 100 μA (21") and 800 ± 100μA (14") | |

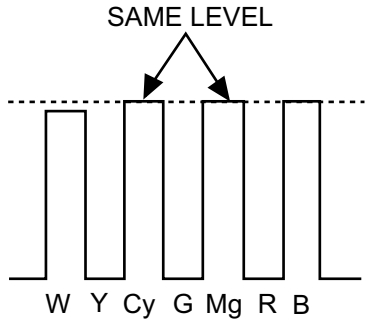
## 5. HORIZONTAL VERTICAL DEFLECTION LOOP AND FOCUS ADJUSTMENT

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **V-LIN (I²C BUS CONTROL)** | 1. Receive Monoscope Pattern Signal.<br>2. Call the "V-LIN" mode.<br>3. Increase or decrease "V-LIN" by Volume key till the horizontal line in the center of monoscope is just at the position where the blanking starts. | |
| 2 | **V-CENT (I²C BUS CONTROL)** | 1. Call the "V-CENT" mode.<br>2. Increase or decrease "V-CENT" by Volume key till the picture is centered. | |
| 3 | **V-AMP (I²C BUS CONTROL)** | 1. Call the "V-AMP" mode.<br>2. Increase or decrease "V-AMP" by Volume key to set overscan of 9.5% typical.<br>Adjustment Spec 9.5% range +1% -0%. | |
| 4 | **H-CENT (I²C BUS CONTROL)** | 1. Call the "H-CENT" mode.<br>2. Increase or decrease "H-CENT" by Volume key to center the picture horizontal. | |
| 5 | **S-CORRECTION (I²C BUS CONTROL)** | 1. SET DATA TO 20(21"), 17(14").<br>* Check the E-5 CH Monoscope Pattern then re-adjust V-Slope, V-Shift and V-Amp to makesure adjustment is in acceptable Ring-Shaped. | |
| 6 | **SUB-SHARPNESS** | 1. SET DATA TO 20. | |
| 1 | **Focus** | 1. Receive the "Monoscope Pattern" signal.<br>2. Press R/C to set Picture NORMAL condition.<br>3. Adjust the focus control by focusing at middle of center and edge of the monoscope pattern (as shown in the figure) to get the best focusing. (Make the character "50" on right edge of monoscope as fine as possible) |  Focusing Point (middle of center and edge of monoscope pattern) |

## 6. PAL CHROMA ADJUSTMENT

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **SUB COLOUR (I²C BUS CONTROL)** | ***Before adjust SUB-COL, make sure COL-OP=8, COL-OS=8, COL-O3=4,**<br>1. Receive the "PAL Color Bar" signal.<br>2. Press R/C to set Picture Normal condition.<br>3. Connect the oscilloscope to<br>Red Cathode ( D882 Cathode ) for 21" ( Normal Neck )<br>Red Cathode ( D881 Cathode ) for 14"/ 21" ( Mini Neck )<br>Range : 20 V/Div (AC)<br>Sweep Time : 10 μsec/Div<br>4. Using the R/C call "SUB COL" in SERVICE mode. Adjust SUB COLOUR bus data, so that the 75% White & Red portions of PAL Color Bar be at the same level shown as Fig 1-1.<br>***After adjust SUB-COL, set COL-OP=14, COL-OS=14, COL-O3=10, COL-O4=10.**<br>5. Clear the SERVICE mode. |  Fig. 1-1 |

## 7. NTSC CHROMA ADJUSTMENT

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **SUB-TINT ($I^2C$ BUS CONTROL)** | 1. Receive the "NTSC 3.58 Colour Bar" signal thru AV in.<br>2. Connect the oscilloscope to TP47B (P882 pin 5) BLUE-OUT.<br>● Range : 200mV/div. (AC)(Use Probe 10:1)<br>● Sweep time : 10 μsec/div.<br>3. Call the "SUB-TINT" mode in service mode. Adjust the "SUB-TINT" bus data to obtain the waveform shown as Fig. 1-1.<br>4. Clear the SERVICE mode. |  <br>Fig. 1-1 |

## 8. PROTECTOR OPERATION CHECKING

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **BEAM PROTECTOR** | 1. Receive "Monoscope Pattern" signal.<br>2. Set CONTRAST MAX.<br>3. Set BRIGHT MAX.<br>4. During the Collector & Emitter of Q883/5/7 short, make sure the protector ON and switch to standby mode. | * Select one of Q883/5/7 to do each short test. |
| 2 | **H. V PROTECTOR** | 1. Receive "Monoscope Pattern" signal.<br>2. Connect output of Bias Box to D603 cathode (R610 side).<br>3. Set voltage of Bias Box to 18V and make sure the protector is not working.<br>4. Set voltage of Bias Box to 27V, and make sure the protector is working. | |
| 3 | **Other protectors** | 1. Once finish rectified Electrolytic Capacitor short testing in +B line, check all possible damaged components on +B line.<br>(Use random selected set for inspection) | |

## 9. A/V INPUT AND OUTPUT CHECKING

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **VIDEO AND AUDIO OUTPUT CHECK** | 1. Receive the "PAL Colour Bar" signal (100% White Colour Bar, Sound 400 Hz 100% Mod).<br>2. Terminate the Video output with a 75 ohm impedance. Make sure the output is as specified (1.0 Vp-p ±3 dB).<br>3. Terminate the Audio output with a 10k ohm impedance. Make sure the O/P is as specified (1.76 Vp-p ±3 dB). | |
| 2 | **VIDEO AND AUDIO INPUT CHECK** | 1. Using the TV/AV key on the remote controller, make sure that the modes change in order of TV, AV & TV again and the video & audio output are according to the input terminal for each mode. If connect input to Front and Rear AV terminal, input terminal of Front AV will be selected. | |

## 10. FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **CONTRAST key** | 1. Receive "Monoscope Pattern" signal.<br>2. Set P-Mode to select CONTRAST.<br>3. Press Volume Up/Down key to check whether the CONTRAST effect is OK or not. | |
| 2 | **COLOUR key** | 1. Receive "Colour Bar" signal.<br>2. Set P-Mode to select COLOUR.<br>3. Press Volume Up/Down key to check whether the COLOUR effect is OK or not. | |
| 3 | **BRIGHTNESS key** | 1. Receive "Monoscope Pattern" signal.<br>2. Set P-Mode to select BRIGHTNESS.<br>3. Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not. | |
| 4 | **TINT key** | 1. Receive the "NTSC Colour Bar" signal thru AV in.<br>2. Set P-Mode to select TINT.<br>3. Press Volume Up/Down key to check TINT, UP for GREEN direction and DOWN for PURPLE direction whether is OK or not. | |
| 5 | **SHARPNESS Key** | 1. Receive "Monoscope Pattern" signal.<br>2. Set P-mode to select SHARPNESS.<br>3. Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not. | |
| 6 | **CH DISPLAY COLOUR** | 1. All Ch (1~99) will have an OSD display of the channel number in green colour under AFT ON condition. | |

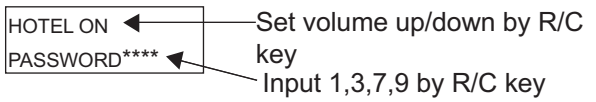
| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 7 | **NORMAL Key** | 1. Once in PICTURE Mode, and theNORMAL key is pressed, all the settings will be present to normal setting.<br>(Normal setting value for every mode).<br>● CONTRAST : MAX<br>● COLOUR : CENTER<br>● BRIGHTNESS : CENTER<br>● TINT : CENTER<br>● SHARPNESS : CENTER | **Notes:If nothing is display mean contrast, colour, bright, tint, sharpness are all in normal setting.** |
| 8 | **WHITE TEMP** | 1. Receive "Monoscope Pattern" signal.<br>2. Set FUNCTION to select WHITE TEMP.<br>3. Press Volume Up/Down key to check WHITE TEMP Option, STANDARD:<br>NORMAL SETTING, WARM for more REDDISH direction changing, COOL for more BLUISH direction changing. | |
| 9 | **COLOUR SYSTEM** | 1. Receive the "PAL COLOUR BAR" signal, press the COLOUR SYSTEM key to select modes except PAL, check the COLOUR is not working properly. Then, select the "PAL" mode. Check again its colour so that it is working properly.<br>2. Receive "SECAM COLOUR BAR" signal, press COLOUR SYSTEM key to select modes except SECAM, check the COLOUR is not working properly. Then, select the "SECAM" mode. Check again its colour so that it is working properly.<br>3. Receive "NTSC 4.43/3.58 COLOUR BAR" signal thru AV, press COLOUR SYSTEM key to select modes except N4.43/3.58, check the COLOUR is not working properly. Then, select the "NTSC 4.43/3.58" mode. Check again its colour so that it is working properly. | |

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 10 | **SOUND SYSTEM** | 1. Receive "PAL-D/K" signal, press the "SOUND SYSTEM" to select B/G, I. Check the sound output is not working properly. Select D/K and check the sound output to make sure it is working properly.<br>2. Receive "PAL-I" signal, press the "SOUND SYSTEM" to select B/G, D/K. Check the sound output is not working properly. Select I and check the sound output to make sure it is working properly.<br>3. Receive "PAL-B/G" signal, press the "SOUND SYSTEM"to select I, D/K. Check the sound output is not working properly. Select B/G and check the sound output to make sure it is working properly. | |
| 11 | **NOISE MUTE CHECKING** | 1. Receive "PAL COLOUR BAR" signal.<br>2. Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state.<br>3. Check the sound mute is effective.<br>4. Finally turn sound level of CTV to minimum. | |
| 12 | **OSD LANGUAGE QUANTITY CHECK** | Check OSD LANGUAGE quantity and type as English, Chinese, French, Arabic, Malay and Russian. | |

## 11. HEADPHONE JACK CHECKING

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **HEADPHONE OUTPUT CHECKING** | 1. Receive PAL COLOUR BAR with SOUND 400Hz, 100% MODULATION (±50kHz Dev).<br>2. Maximum volume, and check the headphone output with 400Hz sound and no sound out from speaker. | |

## 12. HOTEL MODE CHECKING

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **HOTEL MODE FUNCTION CHECKING** | 1. Press the R/C FUNCTION key until language appear, within five seconds press the (one/two digit) key and keep pressing it for five seconds, then the Hotel Mode with four digits password appears.<br>2. Key in the four digits password starting with number "1","3","7","9" then the Hotel Mode will be enable, to switch ON/OFF the Hotel Mode please press volume up/down at R/C.<br>  <br>3. After "ON" the Hotel Mode, user can't control Preset mode, Fine Tuning, Skip mode and System selection. Other functions are allowed to be used.<br>**Note : Please OFF Hotel mode after finish checking the hotel mode.**<br>4. To "OFF" Hotel Mode, please follow step1. and 2. | |

## 13. SHOCK TEST CHECKING

| No. | Adjusting point | Adjusting procedure/conditions | Waveform or others |
|---|---|---|---|
| 1 | **SHOCK TEST** | 1. Hit at the top of TV set for two times.<br>2. Check TV set not damage and TV operation operate correctly. | |

# CHAPTER 4. MEMORY MAP

## [1] MEMORY MAP

| ADDRESS | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (HEX) | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| 00 | PASS WORD | | | | | | | | 55 | 00-FF | | | | | | | |
| 01 | PASS WORD | | | | | | | | 4F | 00-FF | | | | | | | |
| 02 | PASS WORD | | | | | | | | 43 | 00-FF | | | | | | | |
| 03 | PASS WORD | | | | | | | | A1 | 00-FF | | | | | | | |
| 04 | | | | | | | | | | | | | | | | | |
| 05 | | | | | | | | | | | | | | | | | |
| 06 | AGC TAKE-OVER | | | | | | | | 0E | 00-3F | | | | | | | |
| 07 | V-SLOPE | | | | | | | | 20 | 00-3F | | | | | | | |
| 08 | V-AMPLITUDE | | | | | | | | 20 | 00-3F | | | | | | | |
| 09 | V-CENTER | | | | | | | | 20 | 00-3F | | | | | | | |
| 0A | H-CENTER | | | | | | | | 20 | 00-3F | | | | | | | |
| 0B | H-SIZE | | | | | | | | 20 | 00-3F | | | | | | | |
| 0C | EW-PARALLELOGRAM | | | | | | | | 20 | 00-3F | | | | | | | |
| 0D | EW-PARABOLA/WIDTH | | | | | | | | 20 | 00-3F | | | | | | | |
| 0E | EW-UPPER CORNER | | | | | | | | 20 | 00-3F | | | | | | | |
| 0F | EW-LOWER CORNER | | | | | | | | 20 | 00-3F | | | | | | | |
| 10 | EW-TRAPEZIUM | | | | | | | | 20 | 00-3F | | | | | | | |
| 11 | HORIZONTAL-BOW | | | | | | | | 20 | 00-3F | | | | | | | |
| 12 | S-CORRECTION | | | | | | | | 00 | 00-3F | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | |
| 16 | DRIVE-R (STANDARD) | | | | | | | | 20 | 00-3F | | | | | | | |
| 17 | DRIVE-G (STANDARD) | | | | | | | | 20 | 00-3F | | | | | | | |
| 18 | DRIVE-B (STANDARD) | | | | | | | | 20 | 00-3F | | | | | | | |
| 19 | DRIVE-R (WARM) | | | | | | | | 20 | 00-3F | | | | | | | |
| 1A | DRIVE-G (WARM) | | | | | | | | 20 | 00-3F | | | | | | | |
| 1B | DRIVE-B (WARM) | | | | | | | | 20 | 00-3F | | | | | | | |
| 1C | DRIVE-R (COOL) | | | | | | | | 19 | 00-3F | | | | | | | |
| 1D | DRIVE-G (COOL) | | | | | | | | 20 | 00-3F | | | | | | | |
| 1E | DRIVE-B (COOL) | | | | | | | | 20 | 00-3F | | | | | | | |
| 1F | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | |
| 22 | SUB-VOLUME | | | | | | | | 3F | 00-3F | | | | | | | |
| 23 | SUB-CONTRAST | | | | | | | | 3F | 00-3F | | | | | | | |
| 24 | SUB-COLOUR | | | | | | | | 20 | 00-3F | | | | | | | |
| 25 | SUB-BRIGHTNESS | | | | | | | | 20 | 00-3F | | | | | | | |
| 26 | SUB-TINT | | | | | | | | 20 | 00-3F | | | | | | | |
| 27 | SUB-SHARPNESS | | | | | | | | 20 | 00-3F | | | | | | | |
| 28 | HTL-VOLUME | | | | | | | | 20 | 00-3F | | | | | | | |
| 29 | HTL-POSITION | | | | | | | | FF | 00-FF | | | | | | | |
| 2A | | | | | | | | | | | | | | | | | |
| 2B | | | | | | | | | | | | | | | | | |
| 2C | | | | | | | | | | | | | | | | | |
| 2D | OSD-REFERENCE | | | | | | | | 0F | 00-0F | | | | | | | |
| 2E | CUTOFF LEVEL -OFFSET R | | | | | | | | 20 | 00-3F | | | | | | | (1) 20th August 2001:Change of range & default. |
| 2F | CUTOFF LEVEL -OFFSET G | | | | | | | | 20 | 00-3F | | | | | | | |
| 30 | CATHODE DRIVE LEVEL | | | | | | | | 00 | 00-0F | | | | | | | |
| 31 | Y-DELAY (TV PAL) | | | | | | | | 0C | 00-0F | | | | | | | |
| 32 | Y-DELAY (TV SECAM) | | | | | | | | 0F | 00-0F | | | | | | | |
| 33 | Y-DELAY (TV N358) | | | | | | | | 0C | 00-0F | | | | | | | |
| 34 | Y-DELAY (TV N443) | | | | | | | | 0C | 00-0F | | | | | | | |
| 35 | Y-DELAY (TV BW) | | | | | | | | 0C | 00-0F | | | | | | | |
| 36 | Y-DELAY (AV PAL) | | | | | | | | 0C | 00-0F | | | | | | | |
| 37 | Y-DELAY (AV SECAM) | | | | | | | | 0F | 00-0F | | | | | | | |
| 38 | Y-DELAY (AV N358) | | | | | | | | 0C | 00-0F | | | | | | | |
| 39 | Y-DELAY (AV N443) | | | | | | | | 0C | 00-0F | | | | | | | |
| 3A | Y-DELAY (AV BW) | | | | | | | | 0C | 00-0F | | | | | | | |
| 3B | COLOUR-OFFSET (PAL) | | | | | | | | 08 | 00-0F | | | | | | | |
| 3C | COLOUR-OFFSET (SECAM) | | | | | | | | 08 | 00-0F | | | | | | | |
| 3D | COLOUR-OFFSET (N358) | | | | | | | | 04 | 00-0F | | | | | | | |
| 3E | COLOUR-OFFSET (N443) | | | | | | | | 04 | 00-0F | | | | | | | |
| 3F | SHARPNESS-OFFSET (PAL) | | | | | | | | 08 | 00-0F | | | | | | | |
| MODEL | | | | | | | | | MODEL | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| LETTER NO. | | | | | | | | | LETTER NO. | | | | | | | | |

| ADDRESS | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (HEX) | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| 40 | SHARPNESS-OFFSET (SECAM) | | | | | | | | 04 | 00-0F | | | | | | | |
| 41 | SHARPNESS-OFFSET (N358) | | | | | | | | 0C | 00-0F | | | | | | | |
| 42 | SHARPNESS-OFFSET (N443) | | | | | | | | 08 | 00-0F | | | | | | | |
| 43 | | | | | | | | | | | | | | | | | |
| 44 | FCO | ACL | OSO | EHT | EVG | FFI | AVL | BKS | 1B | 00-FF | | | | | | | |
| 45 | SECAM | N443 | N358 | PB-SECAM | BG | I | DK | M | DE | 00-FF | | | | | | | |
| 46 | SM1 | SM0 | FMWS | AV | BTSC | HTL | VMC | VMI | 53 | 00-FF | | | | | | | |
| 47 | HP2 | FSL | RUS | FRA | CHN | MLY | ARB | THA | 3E | 00-FF | | | | | | | |
| 48 | FOB-AV | FOA-AV | FOB-FE | FOA-FE | AGC1 | AGC0 | BIL | CPT | C4 | 00-FF | | | | | | | |
| 49 | | | | | | NDF | MSA | LED-F | 00 | 00-03 | | | | | | | (1) 20th August 2001: Added 3 new items. |
| 4A | | | | | | | | | | | | | | | | | |
| 4B | | | | | | | | | | | | | | | | | |
| 4C | VOLUME | | | | | | | | 01 | 00-3C | | | | | | | |
| 4D | CONTRAST | | | | | | | | 3C | 00-3C | | | | | | | |
| 4E | COLOUR | | | | | | | | 1E | 00-3C | | | | | | | |
| 4F | BRIGHTNESS | | | | | | | | 1E | 00-3C | | | | | | | |
| 50 | TINT | | | | | | | | 1E | 00-3C | | | | | | | |
| 51 | SHARPNESS | | | | | | | | 1E | 00-3C | | | | | | | |
| 52 | | | | | | | | | | | | | | | | | |
| 53 | | | | | | | | | | | | | | | | | |
| 54 | | | | | | | | | | | | | | | | | |
| 55 | POSITION/AV1/AV2 | | | | | | | | 01 | 00-FF | | | | | | | |
| 56 | FAV-POS A | | | | | | | | 0A | 00-FF | | | | | | | |
| 57 | FAV-POS B | | | | | | | | 14 | 00-FF | | | | | | | |
| 58 | FAV-POS C | | | | | | | | 1E | 00-FF | | | | | | | |
| 59 | FAV-POS D | | | | | | | | 28 | 00-FF | | | | | | | |
| 5A | | | | | | | | | | | | | | | | | |
| 5B | | | | | | | | | | | | | | | | | |
| 5C | LAST POWER MODE | | | | | | | | 00 | 00-01 | | | | | | | |
| 5D | WHITE-TEMP | | | | | | | | 00 | 00-02 | | | | | | | |
| 5E | BLUE BACK | | | | | | | | 00 | 00-01 | | | | | | | |
| 5F | LANGUAGE | | | | | | | | 00 | 00-07 | | | | | | | |
| 60 | LAST DIGIT MODE (1 OR 2) | | | | | | | | 00 | 00-01 | | | | | | | |
| 61 | | | | | | | | | | | | | | | | | |
| 62 | SKIP 0 | SKIP 1 | SKIP 2 | SKIP 3 | SKIP 4 | SKIP 5 | SKIP 6 | SKIP 7 | 80 | 00-FF | | | | | | | |
| 63 | SKIP 8 | SKIP 9 | SKIP 10 | SKIP 11 | SKIP 12 | SKIP 13 | SKIP 14 | SKIP 15 | 00 | 00-FF | | | | | | | |
| 64 | SKIP 16 | SKIP 17 | SKIP 18 | SKIP 19 | SKIP 20 | SKIP 21 | SKIP 22 | SKIP 23 | 00 | 00-FF | | | | | | | |
| 65 | SKIP 24 | SKIP 25 | SKIP 26 | SKIP 27 | SKIP 28 | SKIP 29 | SKIP 30 | SKIP 31 | 00 | 00-FF | | | | | | | |
| 66 | SKIP 32 | SKIP 33 | SKIP 34 | SKIP 35 | SKIP 36 | SKIP 37 | SKIP 38 | SKIP 39 | 00 | 00-FF | | | | | | | |
| 67 | SKIP 40 | SKIP 41 | SKIP 42 | SKIP 43 | SKIP 44 | SKIP 45 | SKIP 46 | SKIP 47 | 00 | 00-FF | | | | | | | |
| 68 | SKIP 48 | SKIP 49 | SKIP 50 | SKIP 51 | SKIP 52 | SKIP 53 | SKIP 54 | SKIP 55 | 00 | 00-FF | | | | | | | |
| 69 | SKIP 56 | SKIP 57 | SKIP 58 | SKIP 59 | SKIP 60 | SKIP 61 | SKIP 62 | SKIP 63 | 00 | 00-FF | | | | | | | |
| 6A | SKIP 64 | SKIP 65 | SKIP 66 | SKIP 67 | SKIP 68 | SKIP 69 | SKIP 70 | SKIP 71 | 00 | 00-FF | | | | | | | |
| 6B | SKIP 72 | SKIP 73 | SKIP 74 | SKIP 75 | SKIP 76 | SKIP 77 | SKIP 78 | SKIP 79 | 00 | 00-FF | | | | | | | |
| 6C | SKIP 80 | SKIP 81 | SKIP 82 | SKIP 83 | SKIP 84 | SKIP 85 | SKIP 86 | SKIP 87 | 00 | 00-FF | | | | | | | |
| 6D | SKIP 88 | SKIP 89 | SKIP 90 | SKIP 91 | SKIP 92 | SKIP 93 | SKIP 94 | SKIP 95 | 00 | 00-FF | | | | | | | |
| 6E | SKIP 96 | SKIP 97 | SKIP 98 | SKIP 99 | | | | | 00 | 00-FF | | | | | | | |
| 6F | | | | | | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | | | | | | |
| 71 | | | | | | | | | | | | | | | | | |
| 72 | | | | | | | | | | | | | | | | | |
| 73 | | | | | | | | | | | | | | | | | |
| 74 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | S-SYS | | | | | | POS 0 |
| 75 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | 000:BG | | | | | | |
| 76 | S-SYS | | | AFT | (auto) | | | C-SYS | | | 001:I | | | | | | |
| 77 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | 010:DK | | | | | | POS 1 |
| 78 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | 011:M | | | | | | |
| 79 | S-SYS | | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 7A | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | AFT | | | | | | POS 2 |
| 7B | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | 0:OFF | | | | | | |
| 7C | S-SYS | | | AFT | (auto) | | | C-SYS | | | 1:ON | | | | | | |
| 7D | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 3 |
| 7E | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 7F | S-SYS | | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| MODEL | | | | | | | | | MODEL | | | | | | | | |
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| LETTER NO. | | | | | | | | | LETTER NO. | | | | | | | | |

| ADDRESS | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (HEX) | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| 80 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 4 |
| 81 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 82 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 83 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 5 |
| 84 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 85 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 86 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 6 |
| 87 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 88 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 89 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 7 |
| 8A | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 8B | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 8C | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 8 |
| 8D | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 8E | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 8F | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 9 |
| 90 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 91 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 92 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 10 |
| 93 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 94 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 95 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 11 |
| 96 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 97 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 98 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 12 |
| 99 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 9A | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 9B | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 13 |
| 9C | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 9D | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 9E | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 14 |
| 9F | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| A0 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| A1 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 15 |
| A2 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| A3 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| A4 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 16 |
| A5 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| A6 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| A7 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 17 |
| A8 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| A9 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| AA | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 18 |
| AB | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| AC | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| AD | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 19 |
| AE | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| AF | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| B0 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 20 |
| B1 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| B2 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| B3 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 21 |
| B4 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| B5 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| B6 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 22 |
| B7 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| B8 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| B9 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 23 |
| BA | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| BB | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| BC | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 24 |
| BD | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| BE | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| BF | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 25 |
| MODEL | | | | | | | | | MODEL | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| ADDRESS (HEX) | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| C0 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| C1 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | POS 25 |
| C2 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | |
| C3 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| C4 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| C5 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 27 |
| C6 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| C7 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| C8 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 28 |
| C9 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| CA | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| CB | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 29 |
| CC | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| CD | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| CE | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 30 |
| CF | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| D0 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| D1 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 31 |
| D2 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| D3 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| D4 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 32 |
| D5 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| D6 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| D7 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 33 |
| D8 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| D9 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| DA | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 34 |
| DB | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| DC | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| DD | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 35 |
| DE | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| DF | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| E0 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 36 |
| E1 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| E2 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| E3 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 37 |
| E4 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| E5 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| E6 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 38 |
| E7 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| E8 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| E9 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 39 |
| EA | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| EB | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| EC | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 40 |
| ED | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| EE | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| EF | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 41 |
| F0 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| F1 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| F2 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 42 |
| F3 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| F4 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| F5 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 43 |
| F6 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| F7 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| F8 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 44 |
| F9 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| FA | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| FB | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 45 |
| FC | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| FD | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| FE | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 46 |
| FF | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| MODEL | | | | | | | | | MODEL | | | | | | | | |
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| ADDRESS | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (HEX) | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| 100 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | POS 46 |
| 101 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 47 |
| 102 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 103 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 104 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 48 |
| 105 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 106 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 107 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 49 |
| 108 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 109 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 10A | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 50 |
| 10B | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 10C | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 10D | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 51 |
| 10E | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 10F | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 110 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 52 |
| 111 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 112 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 113 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 53 |
| 114 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 115 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 116 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 54 |
| 117 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 118 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 119 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 55 |
| 11A | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 11B | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 11C | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 56 |
| 11D | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 11E | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 11F | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 57 |
| 120 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 121 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 122 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 58 |
| 123 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 124 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 125 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 59 |
| 126 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 127 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 128 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 60 |
| 129 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 12A | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 12B | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 61 |
| 12C | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 12D | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 12E | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 62 |
| 12F | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 130 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 131 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 63 |
| 132 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 133 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 134 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 64 |
| 135 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 136 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 137 | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 65 |
| 138 | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 139 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 13A | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 66 |
| 13B | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 13C | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 13D | | | | | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | POS 67 |
| 13E | | | | | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | |
| 13F | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| MODEL | | | | | | | | | MODEL | | | | | | | | |
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| LETTER NO. | | | | | | | | | LETTER NO. | | | | | | | | |

| ADDRESS | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (HEX) | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| 140 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 68 |
| 141 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 142 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 143 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 69 |
| 144 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 145 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 146 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 70 |
| 147 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 148 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 149 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 71 |
| 14A | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 14B | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 14C | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 72 |
| 14D | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 14E | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 14F | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 73 |
| 150 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 151 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 152 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 74 |
| 153 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 154 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 155 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 75 |
| 156 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 157 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 158 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 76 |
| 159 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 15A | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 15B | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 77 |
| 15C | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 15D | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 15E | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 78 |
| 15F | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 160 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 161 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 79 |
| 162 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 163 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 164 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 80 |
| 165 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 166 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 167 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 81 |
| 168 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 169 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 16A | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 82 |
| 16B | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 16C | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 16D | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 83 |
| 16E | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 16F | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 170 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 84 |
| 171 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 172 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 173 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 85 |
| 174 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 175 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 176 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 86 |
| 177 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 178 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 179 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 87 |
| 17A | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 17B | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 17C | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 88 |
| 17D | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 17E | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 17F | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 89 |
| MODEL | | | | | | | | | MODEL | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| ADDRESS | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (HEX) | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| 180 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | POS 89 |
| 181 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 182 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 90 |
| 183 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 184 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 185 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 91 |
| 186 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 187 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 188 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 92 |
| 189 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 18A | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 18B | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 93 |
| 18C | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 18D | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 18E | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 94 |
| 18F | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 190 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 191 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 95 |
| 192 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 193 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 194 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 96 |
| 195 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 196 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 197 | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 97 |
| 198 | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 199 | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 19A | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 98 |
| 19B | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 19C | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 19D | TUNING FREQUANCY (HIGHER PART) | | | | | | | | | | | | | | | | POS 99 |
| 19E | TUNING FREQUANCY (LOWER PART) | | | | | | | | | | | | | | | | |
| 19F | | S-SYS | | AFT | (auto) | | | C-SYS | | | | | | | | | |
| 1A0 | | | | | | | | | | | | | | | | | AV1 |
| 1A1 | | | | | | | | | | | | | | | | | |
| 1A2 | | | | | (auto) | | | C-SYS | | | | | | | | | |
| 1A3 | | | | | | | | | | | | | | | | | AV2 |
| 1A4 | | | | | | | | | | | | | | | | | |
| 1A5 | | | | | (auto) | | | C-SYS | | | | | | | | | |
| 1A6 | | | | | | | | | | | | | | | | | |
| 1A7 | | | | | | | | | | | | | | | | | |
| 1A8 | | | | | | | | | | | | | | | | | |
| 1A9 | | | | | | | | | | | | | | | | | |
| 1AA | | | | | | | | | | | | | | | | | |
| 1AB | | | | | | | | | | | | | | | | | |
| 1AC | | | | | | | | | | | | | | | | | |
| 1AD | | | | | | | | | | | | | | | | | |
| 1AE | | | | | | | | | | | | | | | | | |
| 1AF | | | | | | | | | | | | | | | | | |
| 1B0 | | | | | | | | | | | | | | | | | |
| 1B1 | | | | | | | | | | | | | | | | | |
| 1B2 | | | | | | | | | | | | | | | | | |
| 1B3 | | | | | | | | | | | | | | | | | |
| 1B4 | | | | | | | | | | | | | | | | | |
| 1B5 | | | | | | | | | | | | | | | | | |
| 1B6 | | | | | | | | | | | | | | | | | |
| 1B7 | | | | | | | | | | | | | | | | | |
| 1B8 | | | | | | | | | | | | | | | | | |
| 1B9 | | | | | | | | | | | | | | | | | |
| 1BA | | | | | | | | | | | | | | | | | |
| 1BB | | | | | | | | | | | | | | | | | |
| 1BC | | | | | | | | | | | | | | | | | |
| 1BD | | | | | | | | | | | | | | | | | |
| 1BE | | | | | | | | | | | | | | | | | |
| 1BF | | | | | | | | | | | | | | | | | |
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| ADDRESS | DATA | | | | | | | | MICON | EEPROM | EEPROM | CHASSIS | | CTV FINAL | | LAST INITIAL SETTING DATA | REMARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (HEX) | D7 | D6 | D5 | D4 | D3 | D2 | D1 | D0 | DEFAULT | RANGE | WRITE(CPU) | CHECK DATA | CHECK TYPE | CHECK DATA | CHECK TYPE | | |
| 1C0 | | | | | | | | | | | | | | | | | |
| 1C1 | | | | | | | | | | | | | | | | | |
| 1C2 | | | | | | | | | | | | | | | | | |
| 1C3 | | | | | | | | | | | | | | | | | |
| 1C4 | | | | | | | | | | | | | | | | | |
| 1C5 | | | | | | | | | | | | | | | | | |
| 1C6 | | | | | | | | | | | | | | | | | |
| 1C7 | | | | | | | | | | | | | | | | | |
| 1C8 | | | | | | | | | | | | | | | | | |
| 1C9 | | | | | | | | | | | | | | | | | |
| 1CA | | | | | | | | | | | | | | | | | |
| 1CB | | | | | | | | | | | | | | | | | |
| 1CC | | | | | | | | | | | | | | | | | |
| 1CD | | | | | | | | | | | | | | | | | |
| 1CE | | | | | | | | | | | | | | | | | |
| 1CF | | | | | | | | | | | | | | | | | |
| 1D0 | | | | | | | | | | | | | | | | | |
| 1D1 | | | | | | | | | | | | | | | | | |
| 1D2 | | | | | | | | | | | | | | | | | |
| 1D3 | | | | | | | | | | | | | | | | | |
| 1D4 | | | | | | | | | | | | | | | | | |
| 1D5 | | | | | | | | | | | | | | | | | |
| 1D6 | | | | | | | | | | | | | | | | | |
| 1D7 | | | | | | | | | | | | | | | | | |
| 1D8 | | | | | | | | | | | | | | | | | |
| 1D9 | | | | | | | | | | | | | | | | | |
| 1DA | | | | | | | | | | | | | | | | | |
| 1DB | | | | | | | | | | | | | | | | | |
| 1DC | | | | | | | | | | | | | | | | | |
| 1DD | | | | | | | | | | | | | | | | | |
| 1DE | | | | | | | | | | | | | | | | | |
| 1DF | | | | | | | | | | | | | | | | | |
| 1E0 | | | | | | | | | | | | | | | | | |
| 1E1 | | | | | | | | | | | | | | | | | |
| 1E2 | | | | | | | | | | | | | | | | | |
| 1E3 | | | | | | | | | | | | | | | | | |
| 1E4 | | | | | | | | | | | | | | | | | |
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| 1E8 | | | | | | | | | | | | | | | | | |
| 1E9 | | | | | | | | | | | | | | | | | |
| 1EA | | | | | | | | | | | | | | | | | |
| 1EB | | | | | | | | | | | | | | | | | |
| 1EC | | | | | | | | | | | | | | | | | |
| 1ED | | | | | | | | | | | | | | | | | |
| 1EE | | | | | | | | | | | | | | | | | |
| 1EF | | | | | | | | | | | | | | | | | |
| 1F0 | | | | | | | | | | | | | | | | | |
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| 1F2 | | | | | | | | | | | | | | | | | |
| 1F3 | | | | | | | | | | | | | | | | | |
| 1F4 | | | | | | | | | | | | | | | | | |
| 1F5 | | | | | | | | | | | | | | | | | |
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| 1F9 | | | | | | | | | | | | | | | | | |
| 1FA | | | | | | | | | | | | | | | | | |
| 1FB | | | | | | | | | | | | | | | | | |
| 1FC | | | | | | | | | | | | | | | | | |
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| 1FF | | | | | | | | | | | | | | | | | |
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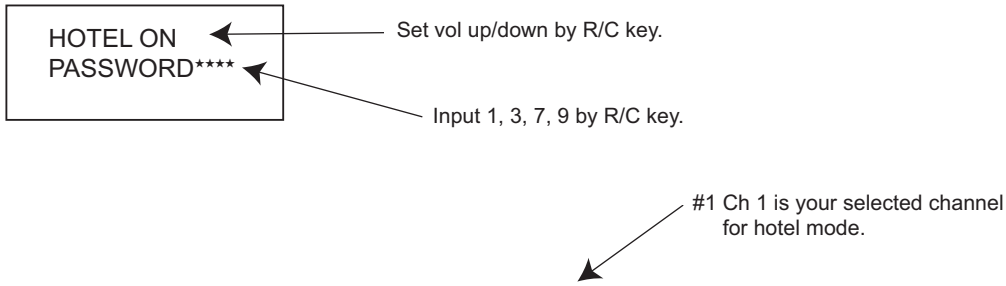
# CHAPTER 5. GA1 HOTEL MODE APPLICATION

## [1] GA1 HOTEL MODE APPLICATION

How to enable/disable the “Hotel Mode”?

Ans: a) Press the R/C (FUNCTION) {1}key until language selection appear, within five second press the (one/two digit) {2}key and keep pressing it for five second, then you can see the hotel mode with four digits password.

b) Key in the four digits password starting with number “1”, “3”, “7”, “9”, then the hotel mode will be enable, you can switch on/off the hotel mode by using R/C (volume up/down) {3}key.




*We recommend

Before set the hotel mode, it is better to choose ch 1 & set s-vol level Up to 75% full scale. Affter set hotel mode, starting channel will be always ch 1 & maximum sound level out will be set the half of full scale.

*If you set hotel mode in AV, starting channel will be the last ch which you received before power off (same as normal operetion)

### CONDITION:*

When using hotel mode, user can control “contrast”, “brightness”, “sharpness” and “tint” function. But after power off, it will return to the initial setting.

You can’t use: -

Preset mode

Fine tuning

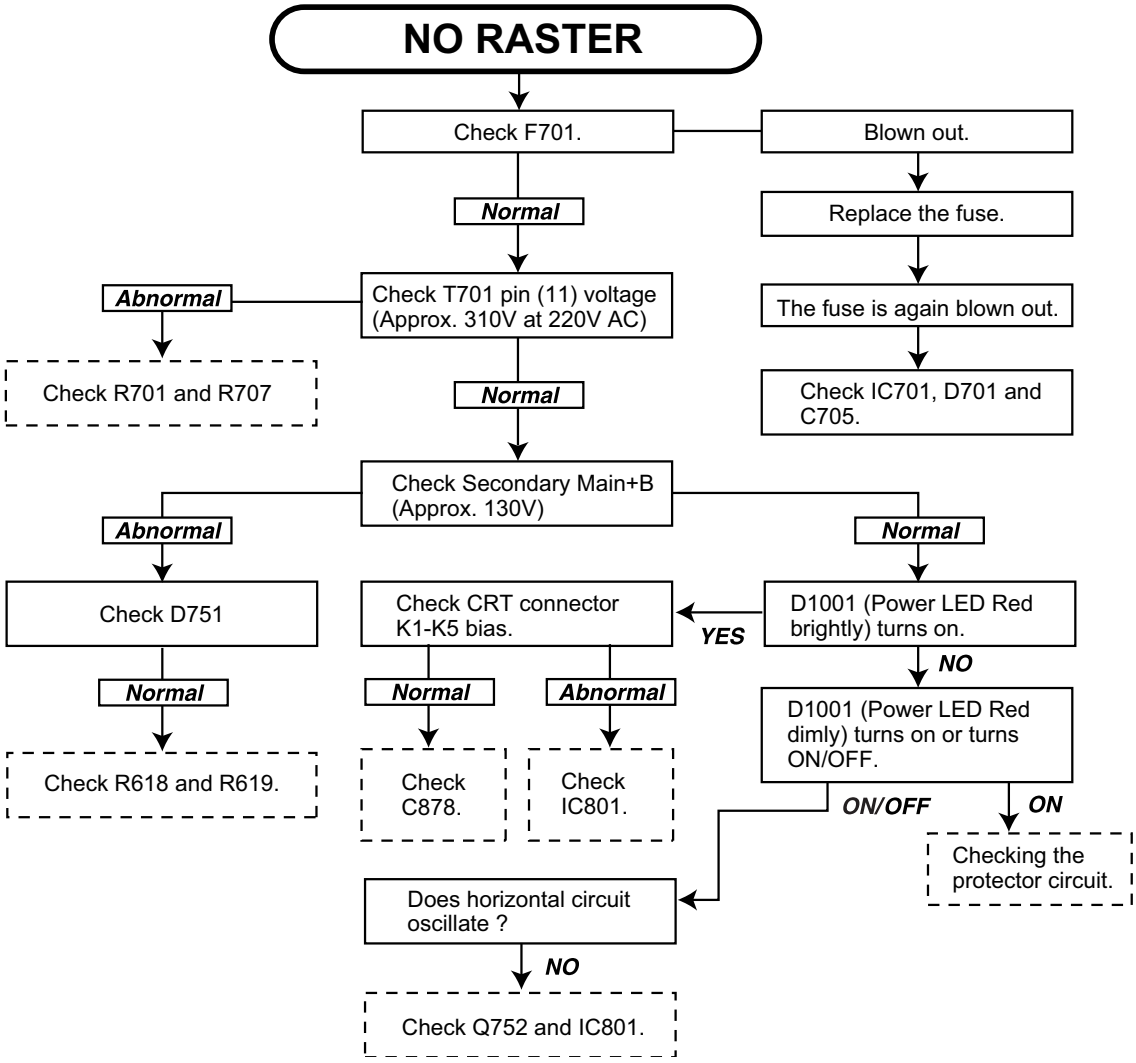
Skip mode

System selection

The others function is allowed to be used.

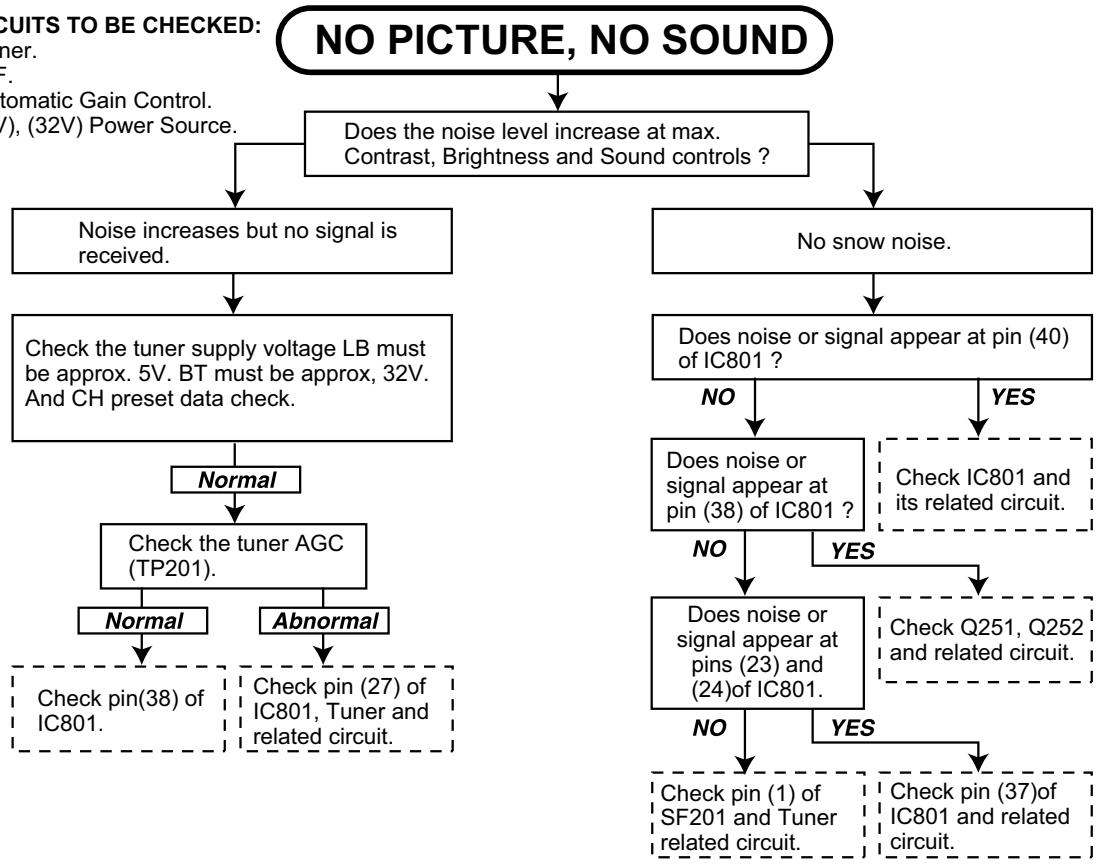
# CHAPTER 6. TROUBLE SHOOTING FLOWCHART

## [1] TROUBLE SHOOTING FLOWCHART

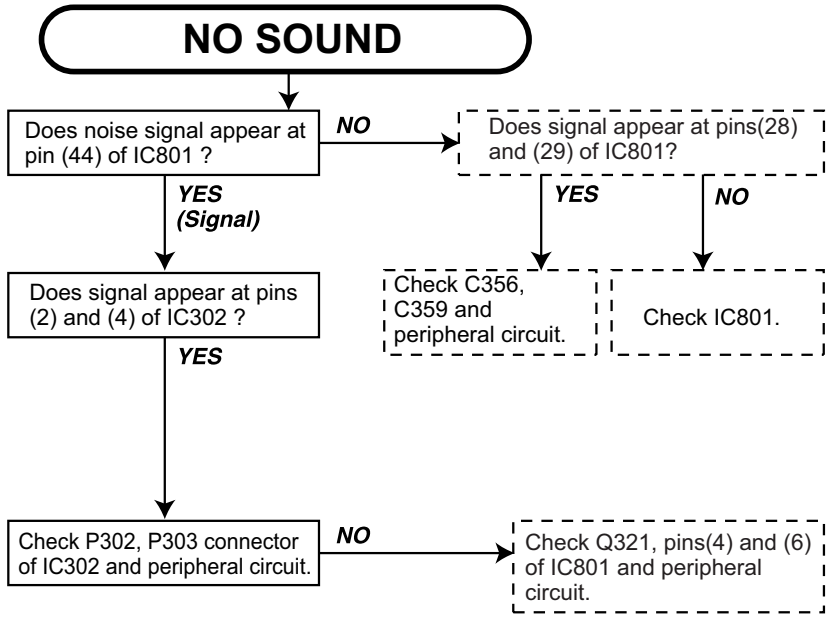


## TROUBLE SHOOTING FLOWCHART (Continued)

**CIRCUITS TO BE CHECKED:**
- Tuner.
- PIF.
- Automatic Gain Control.
- (5V), (32V) Power Source.


NO PICTURE, NO SOUND
Does the noise level increase at max. Contrast, Brightness and Sound controls ?
Noise increases but no signal is received.
Check the tuner supply voltage LB must be approx. 5V. BT must be approx, 32V. And CH preset data check.
Normal
Check the tuner AGC (TP201).
Normal
Abnormal
Check pin(38) of IC801.
Check pin (27) of IC801, Tuner and related circuit.
No snow noise.
Does noise or signal appear at pin (40) of IC801 ?
NO
YES
Does noise or signal appear at pin (38) of IC801 ?
Check IC801 and its related circuit.
NO
YES
Does noise or signal appear at pins (23) and (24)of IC801.
Check Q251, Q252 and related circuit.
NO
YES
Check pin (1) of SF201 and Tuner related circuit.
Check pin (37)of IC801 and related circuit.

**CIRCUITS TO BE CHECKED:**
- Sound system pins (28), (29) and (44) of IC801.
- Sound Detector Circuit.
- Sound Switch and Att. Control.
- Audio Output Circuit.


NO SOUND
Does noise signal appear at pin (44) of IC801 ?
NO
Does signal appear at pins(28) and (29) of IC801?
YES
(Signal)
YES
NO
Does signal appear at pins (2) and (4) of IC302 ?
Check C356, C359 and peripheral circuit.
Check IC801.
YES
Check P302, P303 connector of IC302 and peripheral circuit.
NO
Check Q321, pins(4) and (6) of IC801 and peripheral circuit.

## TROUBLE SHOOTING FLOWCHART (Continued)

### NEITHER VERTICAL NOR HORIZONTAL SYNCHRONIZATION

**CIRCUIT TO BE CHECKED:**
- Sync. Separator Circuit.

Check pins(33) and (34) of IC801.

### DEFECTIVE VERTICAL AMP. AND VERTICAL LINEARITY

Readjust vertical size. (Bas Data)

Vertical linearity and size is abnormal.

Check R501, R503, R512, R521, R533 and C533.

### NO VERTICAL SCAN

Check IC501.

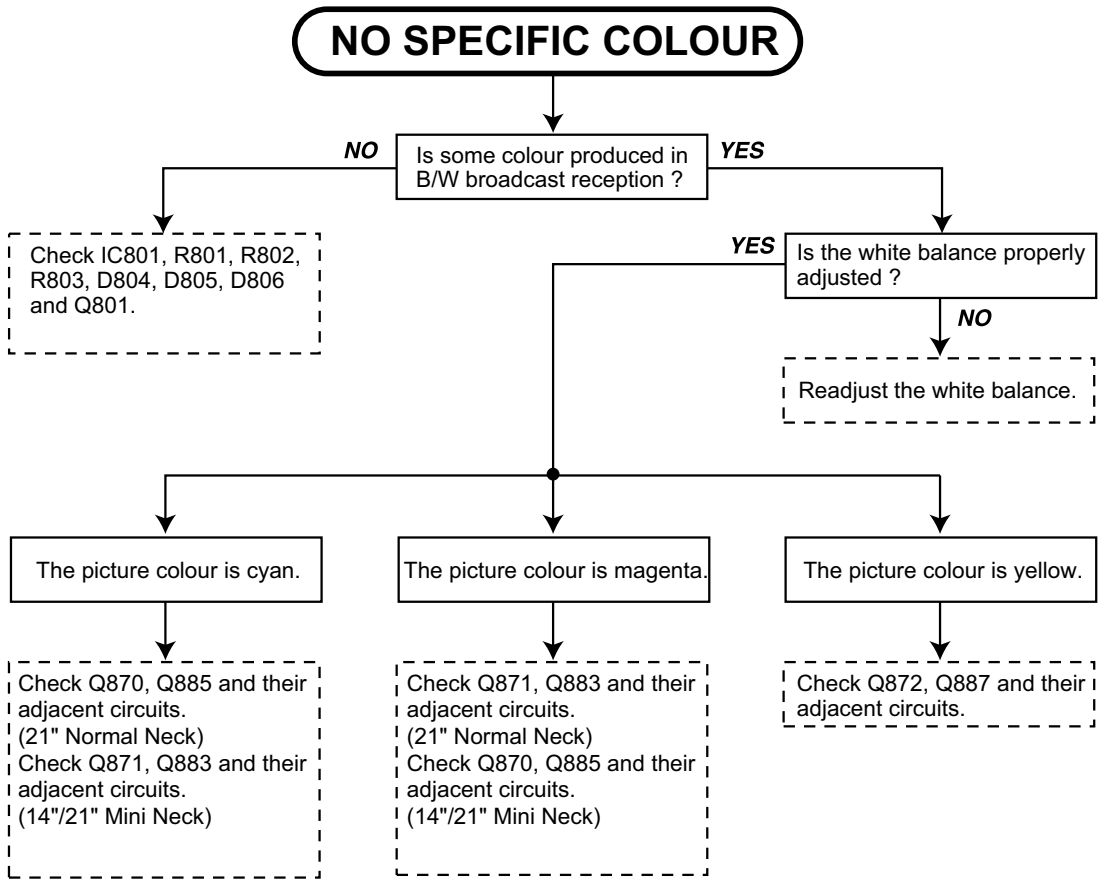
***Normal***

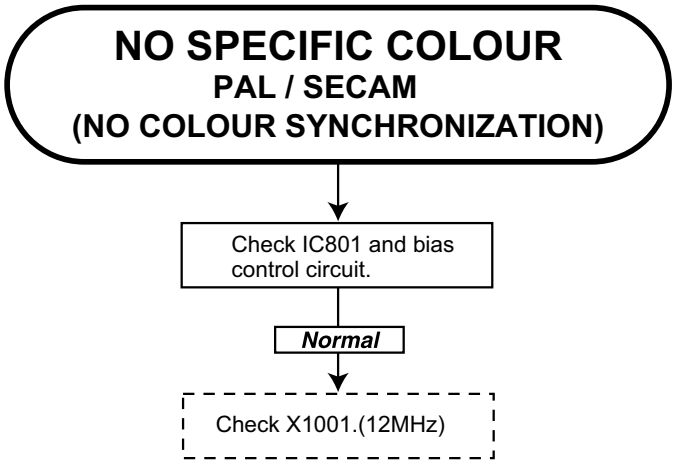
Check C505 and C509.

***Abnormal***

Check IC501.

## TROUBLE SHOOTING FLOWCHART (Continued)

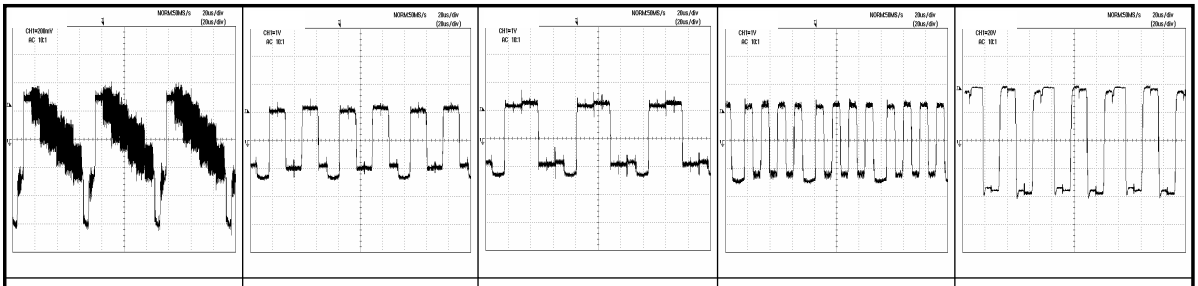

NO SPECIFIC COLOUR
Is some colour produced in B/W broadcast reception ?
NO
YES
Check IC801, R801, R802, R803, D804, D805, D806 and Q801.
Is the white balance properly adjusted ?
YES
NO
Readjust the white balance.
The picture colour is cyan.
The picture colour is magenta.
The picture colour is yellow.
Check Q870, Q885 and their adjacent circuits.
(21" Normal Neck)
Check Q871, Q883 and their adjacent circuits.
(14"/21" Mini Neck)
Check Q871, Q883 and their adjacent circuits.
(21" Normal Neck)
Check Q870, Q885 and their adjacent circuits.
(14"/21" Mini Neck)
Check Q872, Q887 and their adjacent circuits.



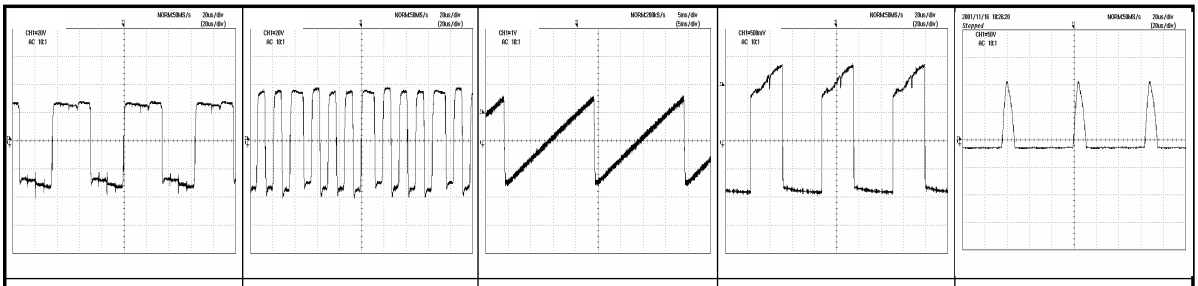
# CHAPTER 7. WAVEFORMS

## [1] WAVEFORMS

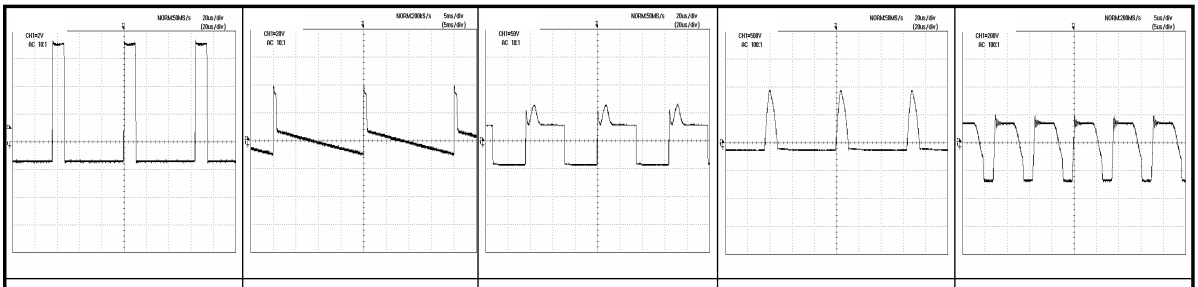
### 1. (14R2F)



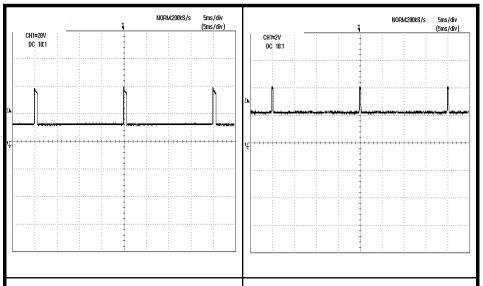
| 1) 1.00 Vp-p (H) | 2) 3.00 Vp-p (H) | 3) 3.10 Vp-p (H) | 4) 3.10 Vp-p (H) | 5) 70.00 Vp-p (H) |
|---|---|---|---|---|



| 6) 78.40 Vp-p (H) | 7) 79.20 Vp-p (H) | 8) 3.20 Vp-p (V) | 9) 2.32 Vp-p (H) | 10) 122.00 Vp-p (H) |
|---|---|---|---|---|

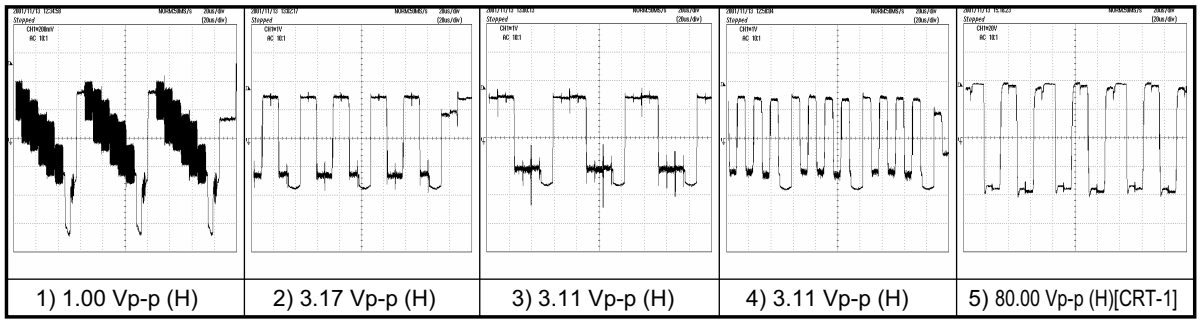


| 11) 8.80 Vp-p (H) | 12) 50.00 Vp-p (V) | 13) 110.00 Vp-p (H) | 14) 1.10 kVp-p (H) | 15) 480.00 Vp-p |
|---|---|---|---|---|

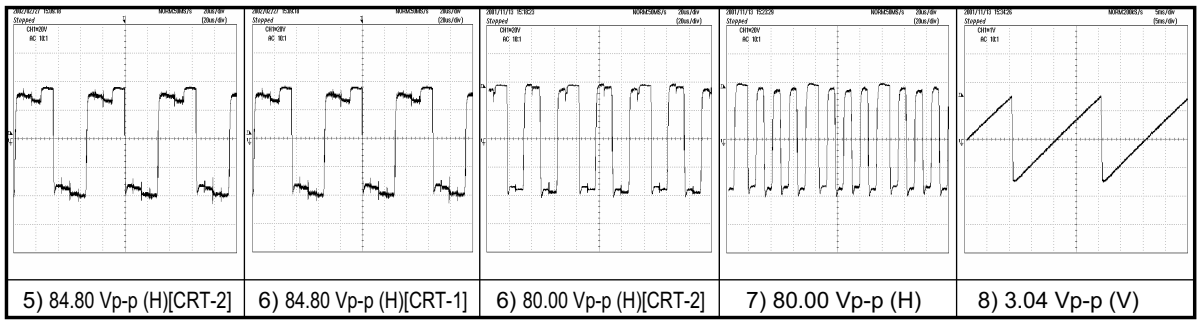


| 16) 28.00 Vp-p (V) | 17) 2.08 Vp-p (V) |
|---|---|

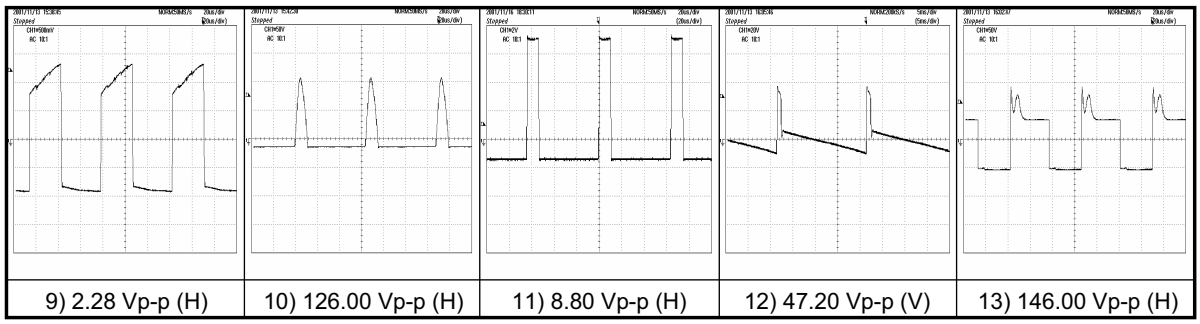
**2. (21R2F)**



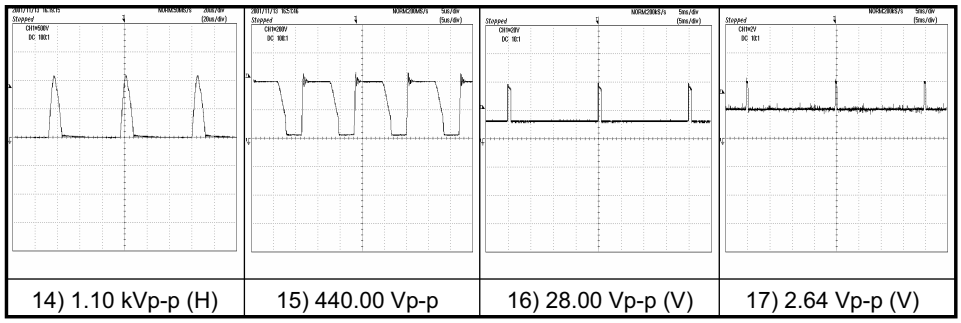
| 1) 1.00 Vp-p (H) | 2) 3.17 Vp-p (H) | 3) 3.11 Vp-p (H) | 4) 3.11 Vp-p (H) | 5) 80.00 Vp-p (H)[CRT-1] |
|---|---|---|---|---|



| 5) 84.80 Vp-p (H)[CRT-2] | 6) 84.80 Vp-p (H)[CRT-1] | 6) 80.00 Vp-p (H)[CRT-2] | 7) 80.00 Vp-p (H) | 8) 3.04 Vp-p (V) |
|---|---|---|---|---|



| 9) 2.28 Vp-p (H) | 10) 126.00 Vp-p (H) | 11) 8.80 Vp-p (H) | 12) 47.20 Vp-p (V) | 13) 146.00 Vp-p (H) |
|---|---|---|---|---|

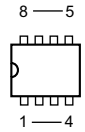


| 14) 1.10 kVp-p (H) | 15) 440.00 Vp-p | 16) 28.00 Vp-p (V) | 17) 2.64 Vp-p (V) |
|---|---|---|---|

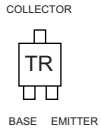
# CHAPTER 8. SOLID STATE DEVICE BASE DIAGRAM

## [1] SOLID STATE DEVICE BASE DIAGRAM

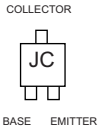
### TOP VIEW




**CAT24W04**
**(BR24C04)**
**(M24C04W)**




**A1530AR**

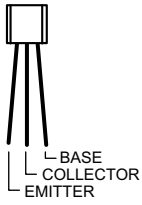



**2SC2735**

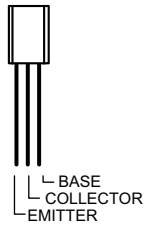
**C3928AR**

**IX3368CE**

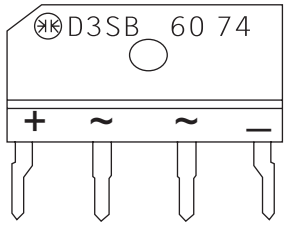
### SIDE VIEW



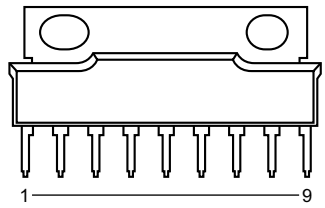

**TX0110BM**
**TX0124BM**



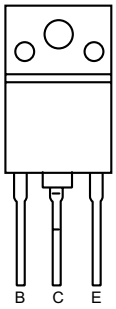

**2PC1815G**
**2SC3207**



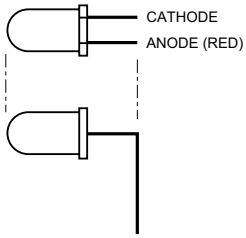

**DX0476CE**



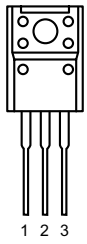

**ANI7823A**



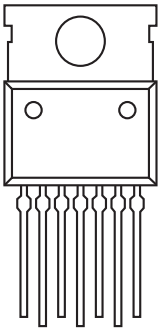

**2SD2586**



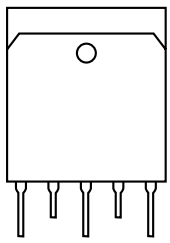

**PX0013PE**




**KA7808A**



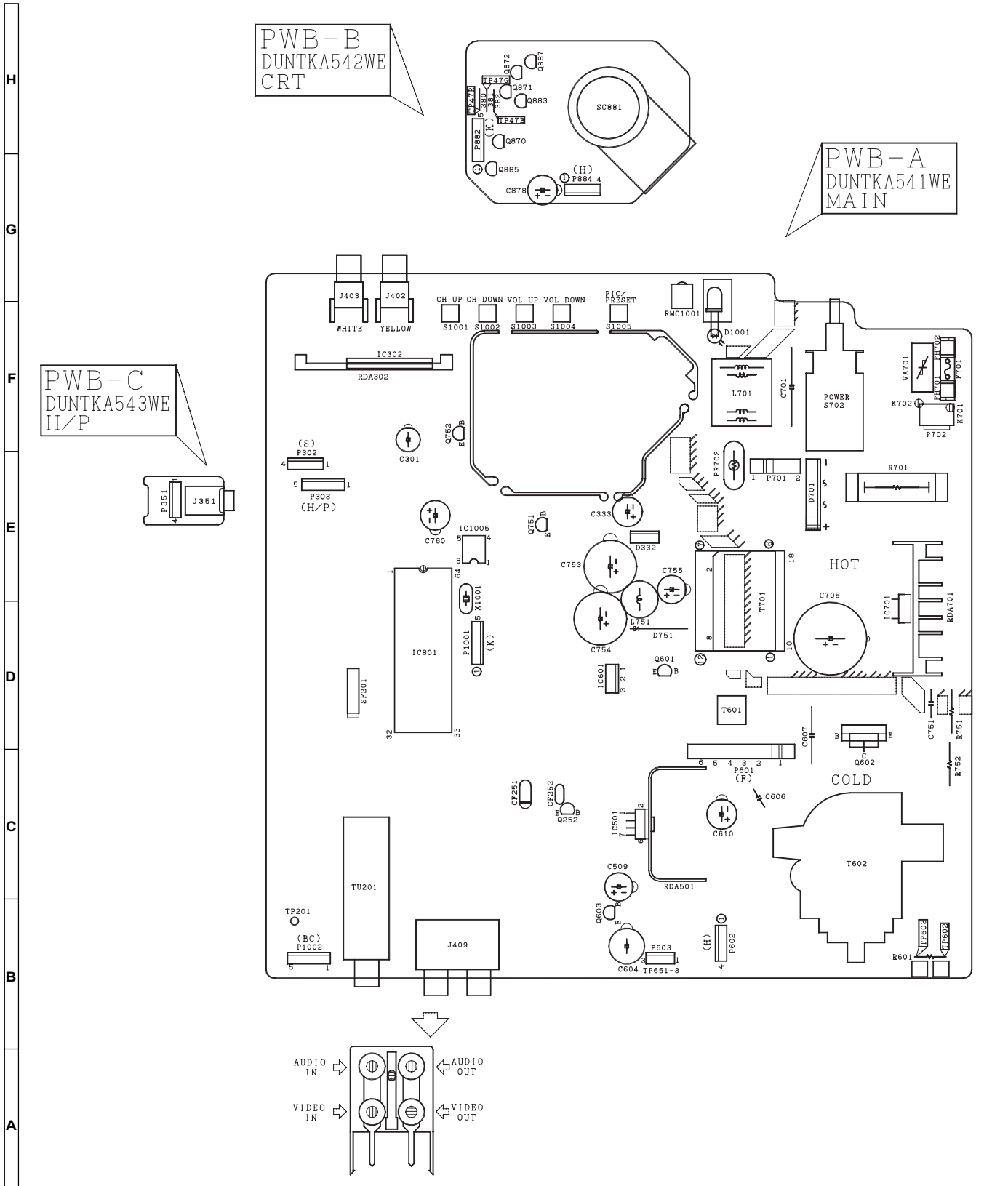
**ANI5524A**



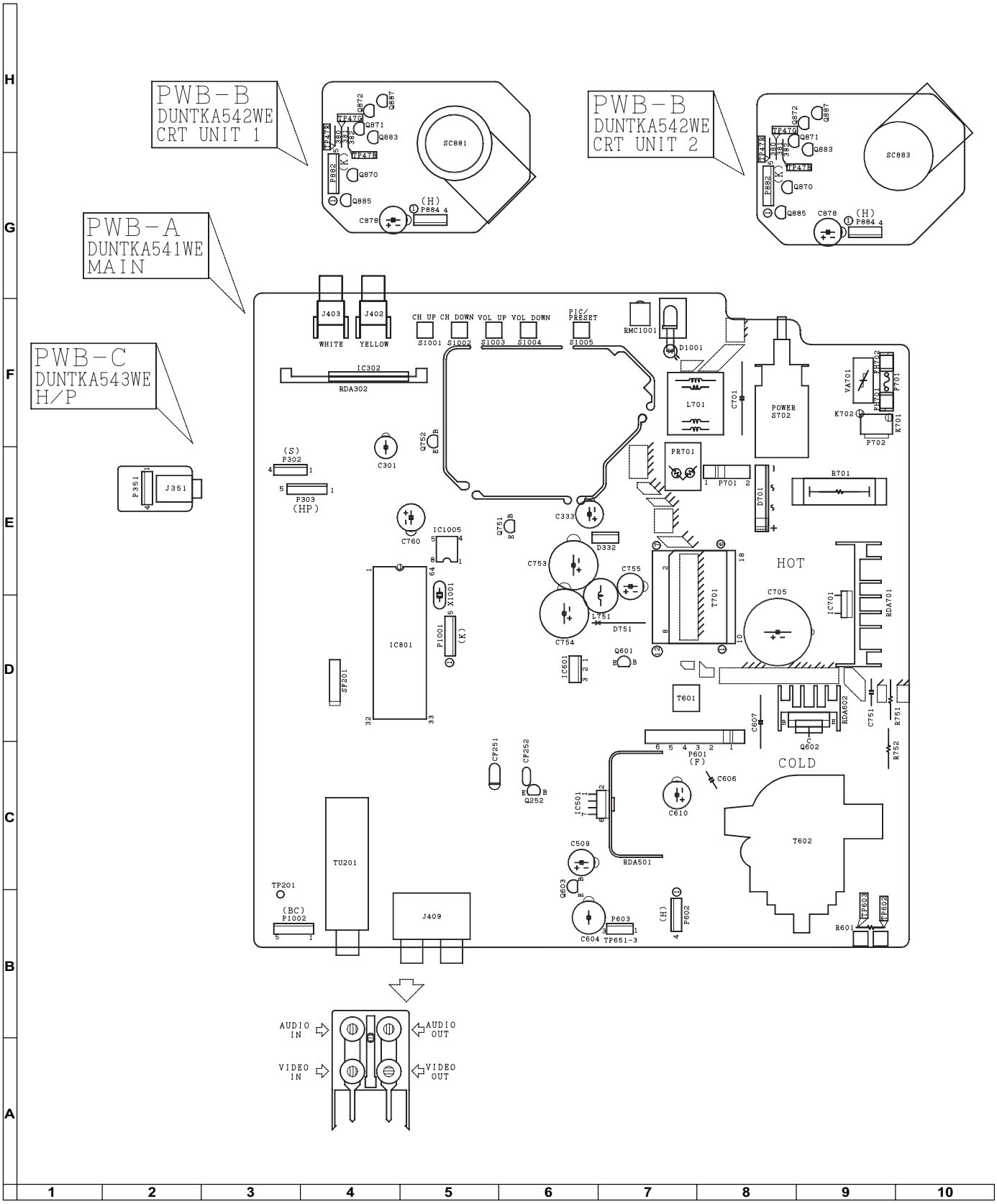
**STRG5653**

# CHAPTER 9. CHASSIS LAYOUT

## [1] 14R2F



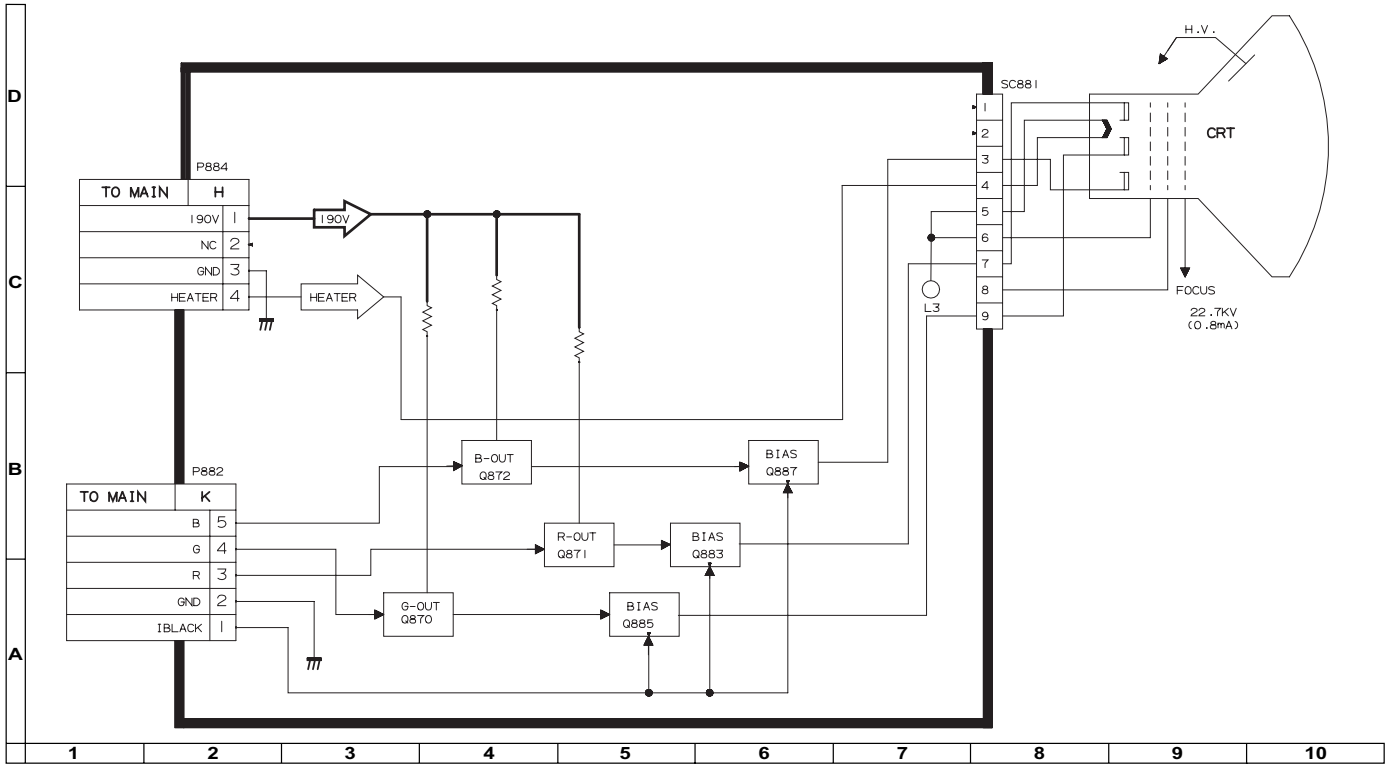
## [2] 21R2F


PWB–B
DUNTKA542WE
CRT UNIT 1
PWB–B
DUNTKA542WE
CRT UNIT 2
PWB–A
DUNTKA541WE
MAIN
PWB–C
DUNTKA543WE
H/P
SC881
SC883
J403
J402
WHITE
YELLOW
CH UP
CH DOWN
VOL UP
VOL DOWN
PIC/ PRESET
S1001
S1002
S1003
S1004
S1005
RMC1001
D1001
IC302
RDA302
L701
C701
POWER S702
K702
P702
VA701
P701
K701
PR701
D701
R701
C301
Q752
P302
P303
(HP)
C760
IC1005
Q751
C333
D332
C753
C755
C754
L751
D751
T701
HOT
C705
IC701
RDA701
IC801
X1001
P1001
IC601
Q601
T601
SF201
C607
RDA602
Q602
C751
R751
R752
P601
(F)
COLD
C606
C610
CF251
CF252
Q252
IC501
T602
C509
RDA501
Q603
TU201
TP201
(BC)
P1002
J409
C604
TP651-3
P603
P602
R601
TP603
TP602
AUDIO IN
VIDEO IN
AUDIO OUT
VIDEO OUT

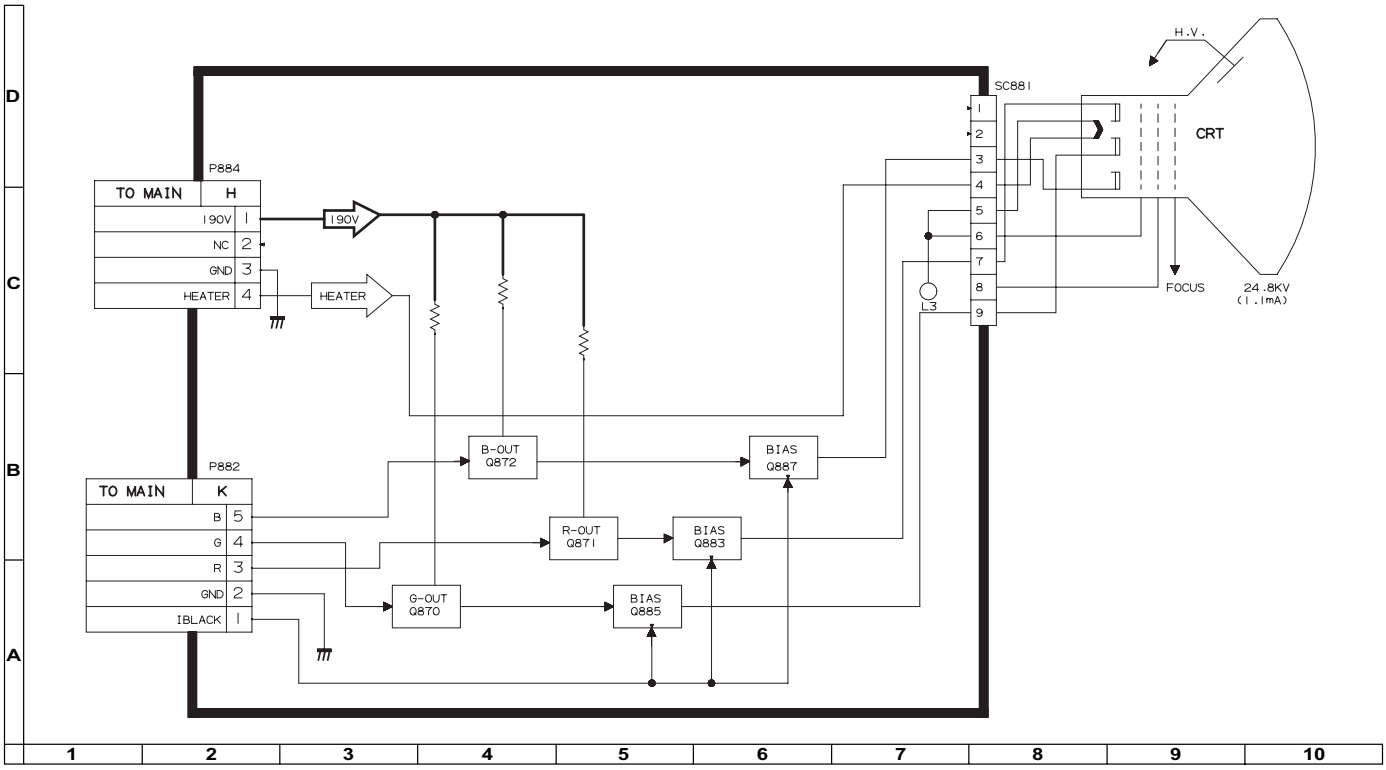
# CHAPTER 10. BLOCK DIAGRAM

## [1] BLOCK DIAGRAM: CRT UNIT

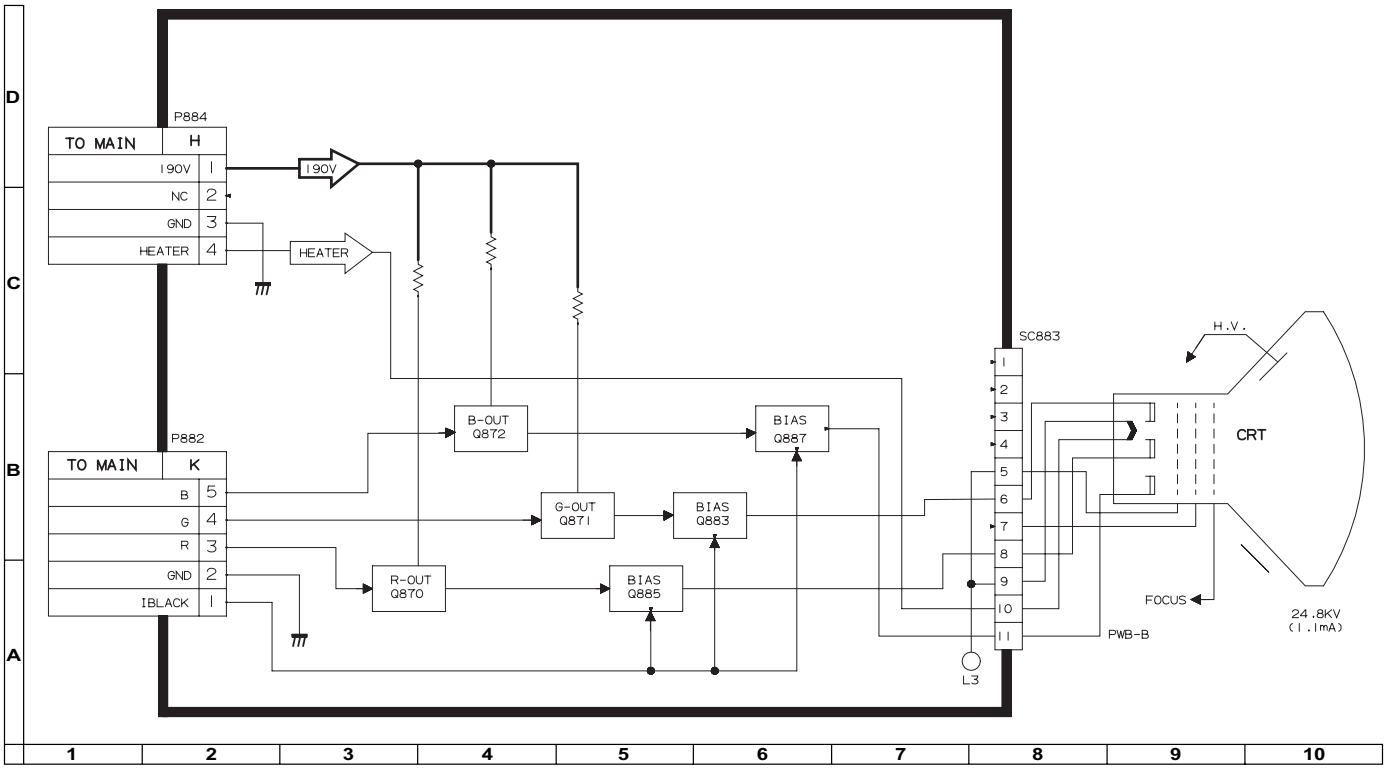
### 1. 14R2F



## 2. 21R2F-1

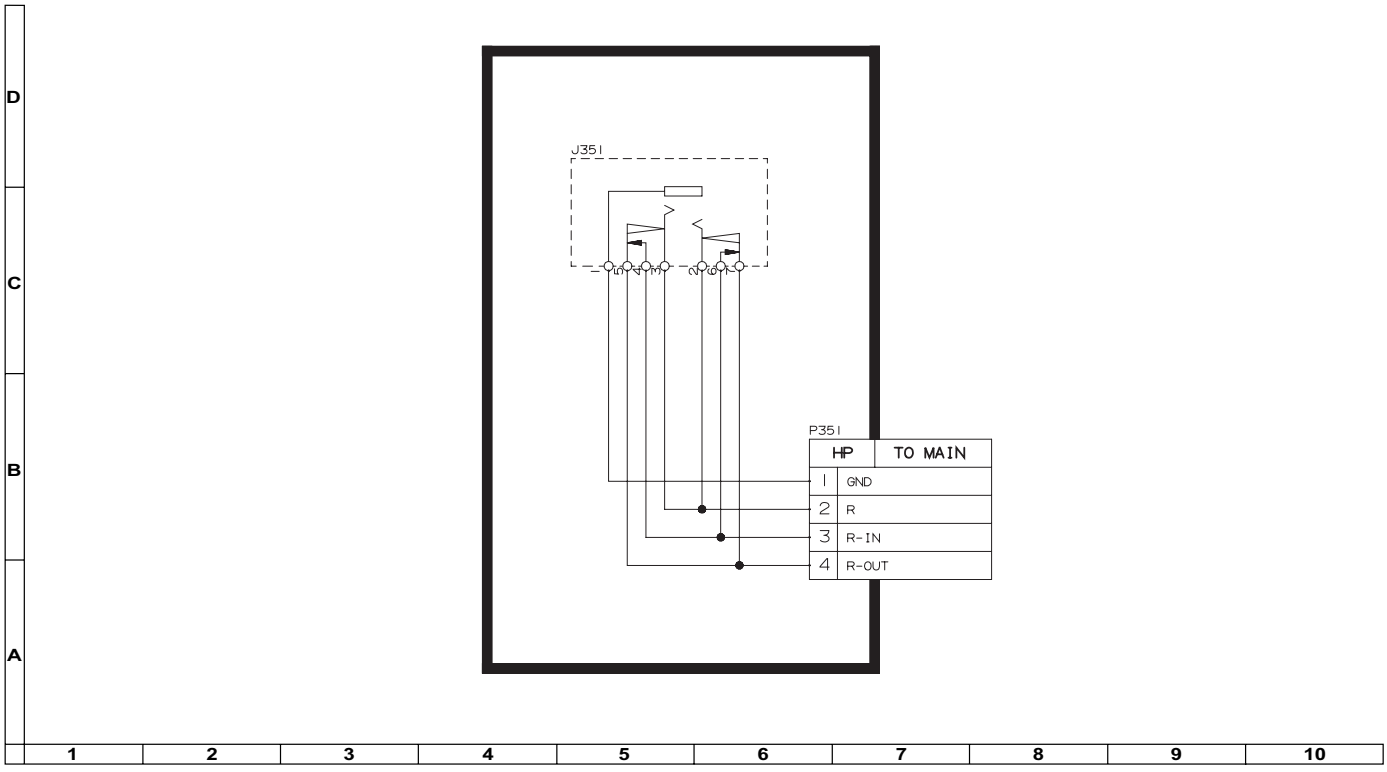



## 3. 21R2F-2



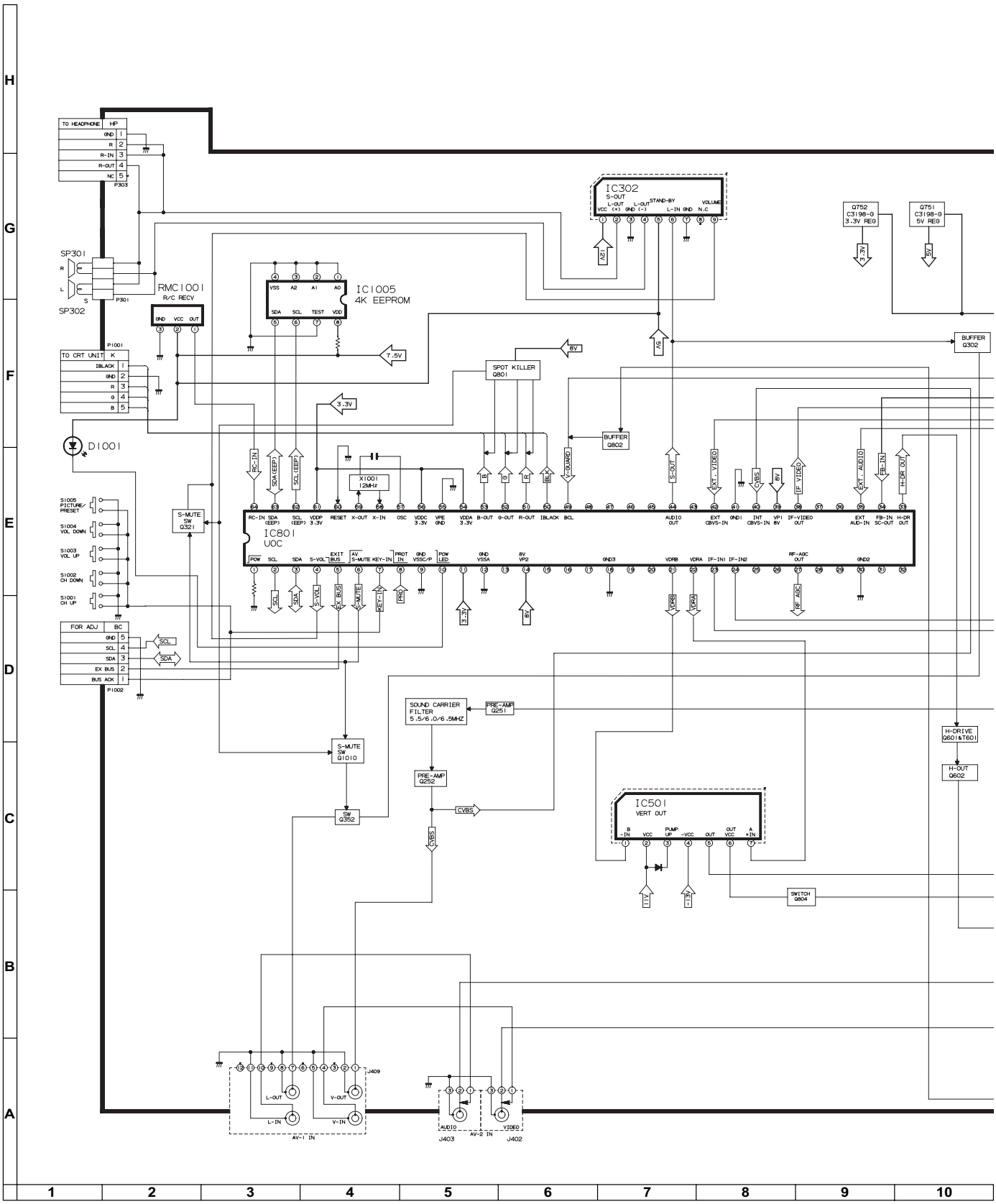
## [2] BLOCK DIAGRAM: HEADPHONE UNIT

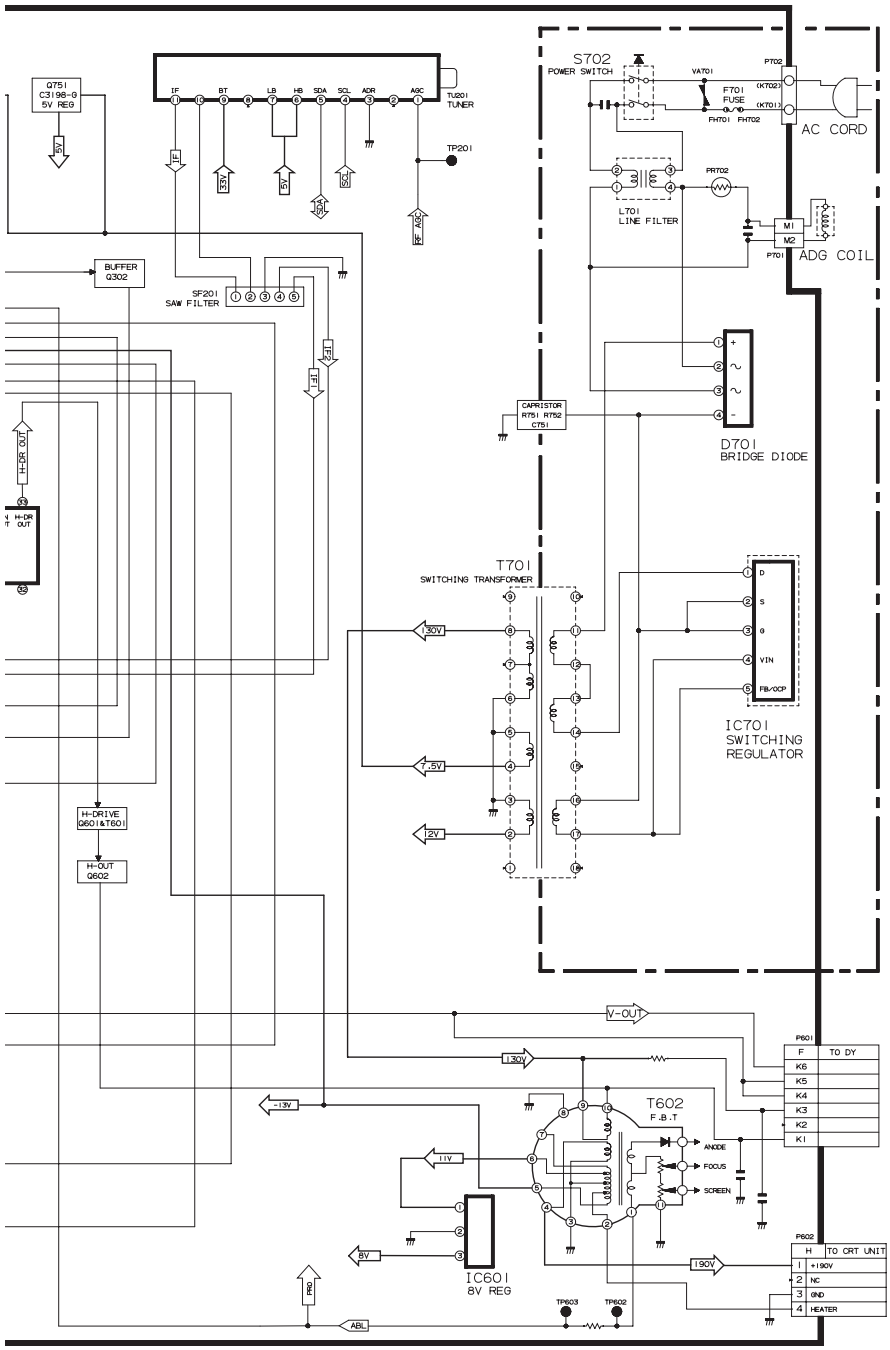
### 1. 14R2F/21R2F



# [3] BLOCK DIAGRAM: MAIN UNIT

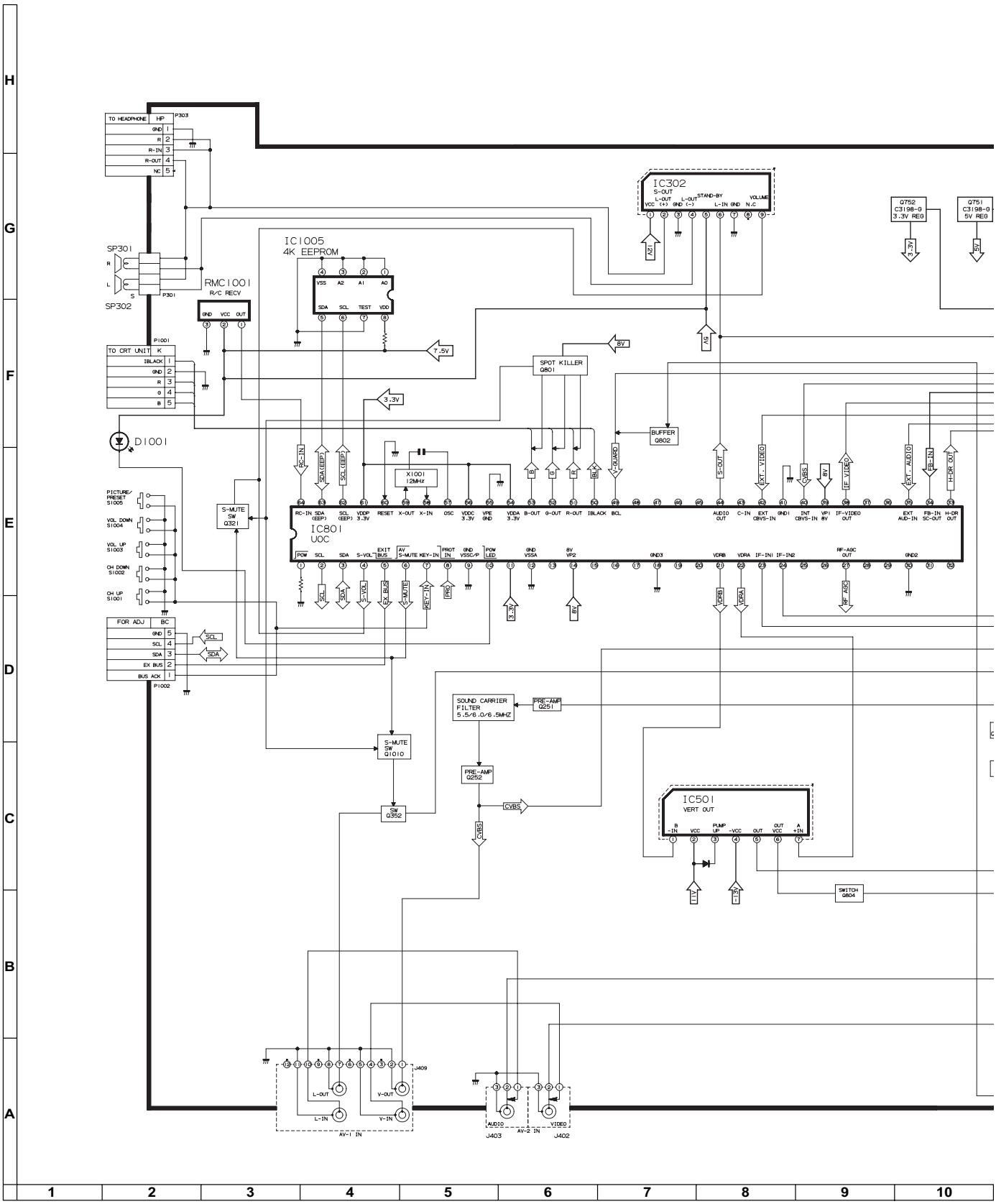
## 1. 14R2F

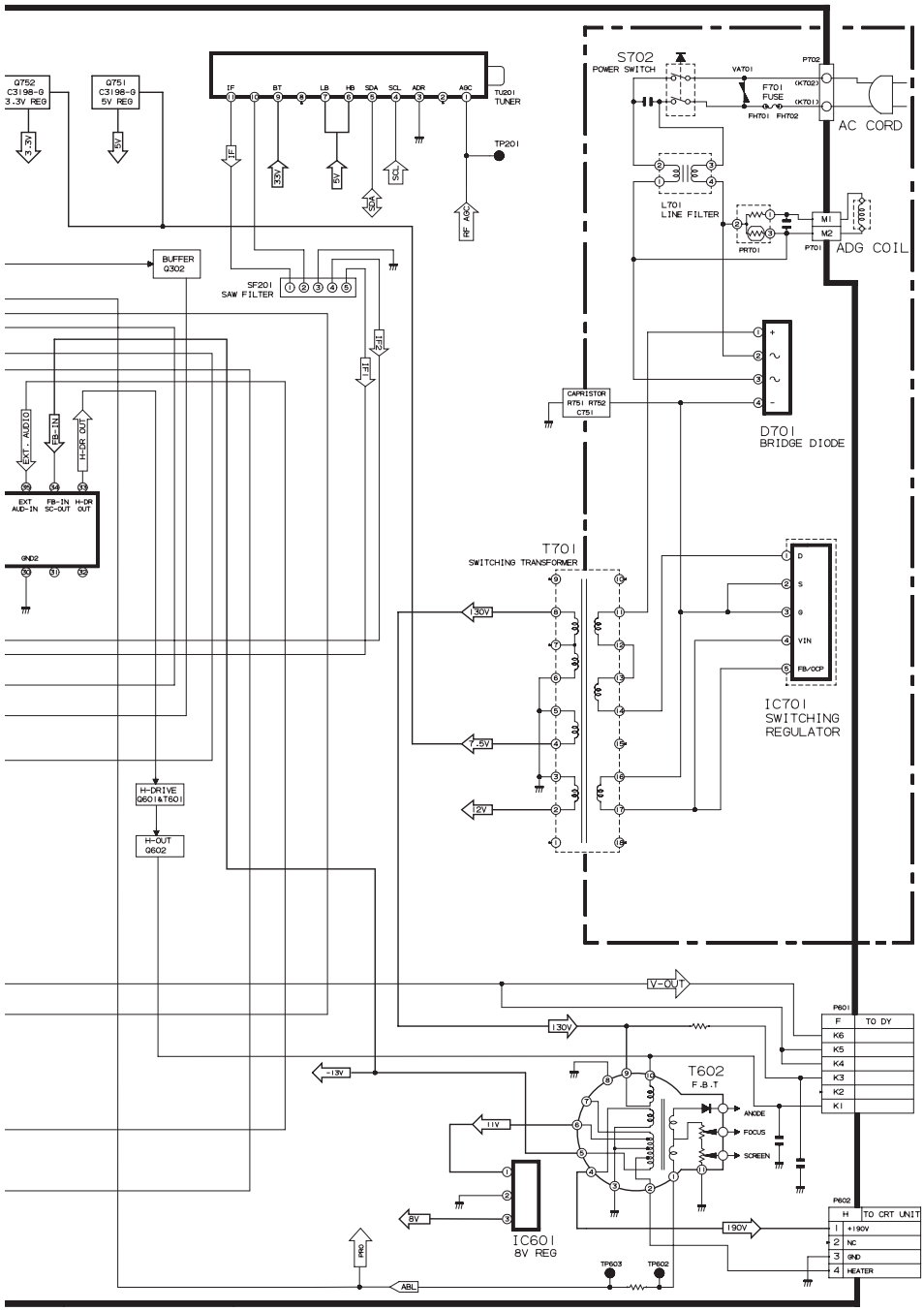





| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

## 2. 21R2F


TO HEADPHONE
HP
P303
GND
R
R-IN
R-OUT
NC
SP301
SP302
RMC1001
R/C RECV
IC1005
4K EEPROM
IC302
S-OUT
L-OUT
STAND-BY
VOLUME
Q752
3198-G
3.3V REG
Q751
5V REG
P1001
TO CRT UNIT
IBLACK
D1001
SPOT KILLER
Q801
BUFFER
Q802
X1001
12MHz
IC801
UOC
S-MUTE
SW
Q321
PICTURE/
PRESET
S1005
VOL DOWN
S1004
VOL UP
S1003
CH DOWN
S1002
CH UP
S1001
FOR ADJ
BC
P1002
SOUND CARRIER
FILTER
5.5/6.0/6.5MHZ
PRE-AMP
Q251
PRE-AMP
Q252
S-MUTE
SW
Q1010
SW
Q352
IC501
VERT OUT
SWITCH
Q804
J409
L-OUT
V-OUT
L-IN
V-IN
AV-1 IN
AUDIO
VIDEO
J403
AV-2 IN
J402




| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

# CHAPTER 11. DESCRIPTION OF SCHEMATIC DIAGRAM

## [1] DESCRIPTION OF SCHEMATIC DIAGRAM

### SAFETY NOTES:

1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

### IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH " ⚠ " ( ) ARE IMPOTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

### SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE ( —— - —— ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE. WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

### NOTES:

1. The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Mega ohm).
2. All resistors are 1/10 watt, unless otherwise noted.
3. All capacitors are μF, unless otherwise noted. (P = μμF).

### VOLTAGE MEASUREMENT CONDITIONS:

1. Voltages in parenthesis measured with no signal.
2. Voltages without parenthesis measured with 3mV B & W or Colour signal.
3. All the voltages in each point are measured with VTVM.

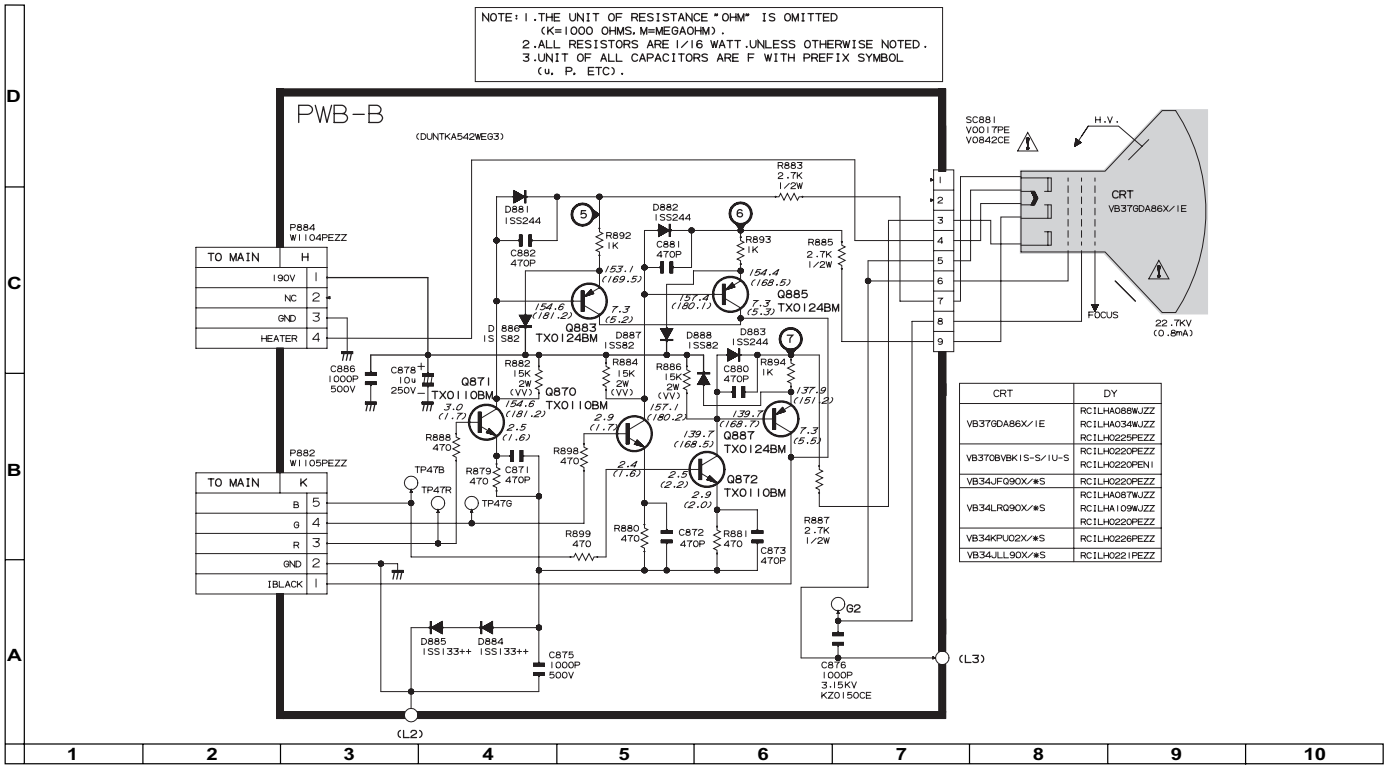
### WAVEFORM MEASUREMENT CONDITIONS:

1. The colour bar generator signal of 2.0V peak applied at of Base Video Buffer Amp. Q252.
2. Approximately 4V AGC bias.

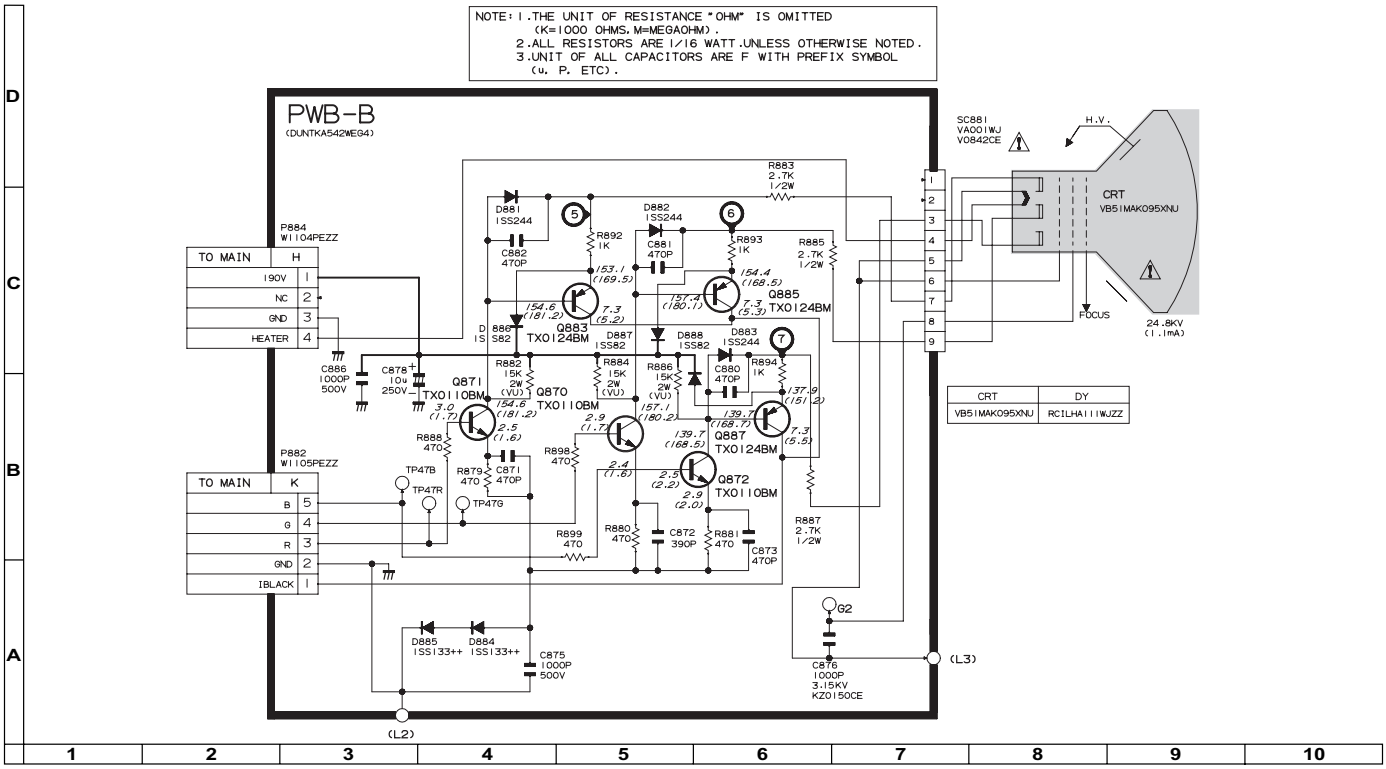
# CHAPTER 12. SCHEMATIC DIAGRAM

## [1] SCHEMATIC DIAGRAM: CRT UNIT

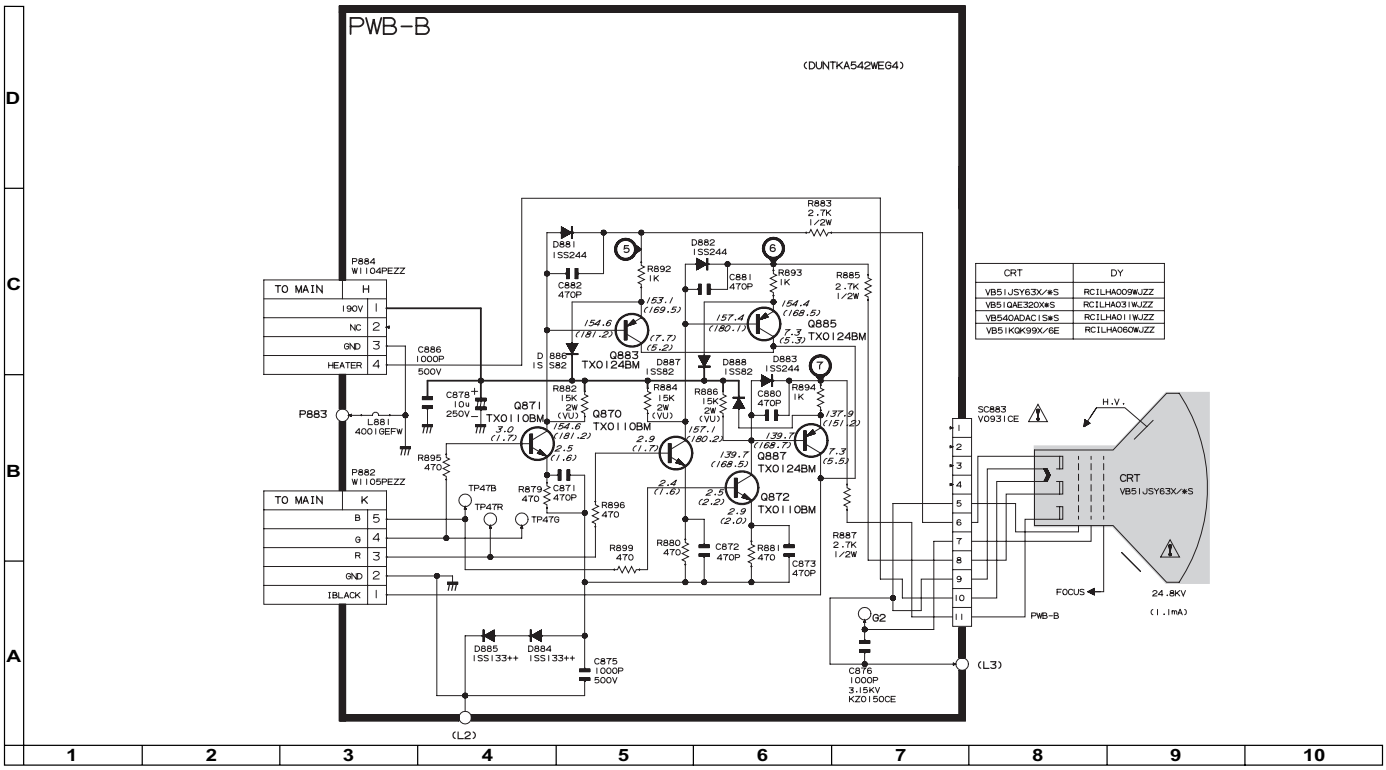
### 1. CRT UNIT: 14R2F



## 2. CRT UNIT-1: 21R2F

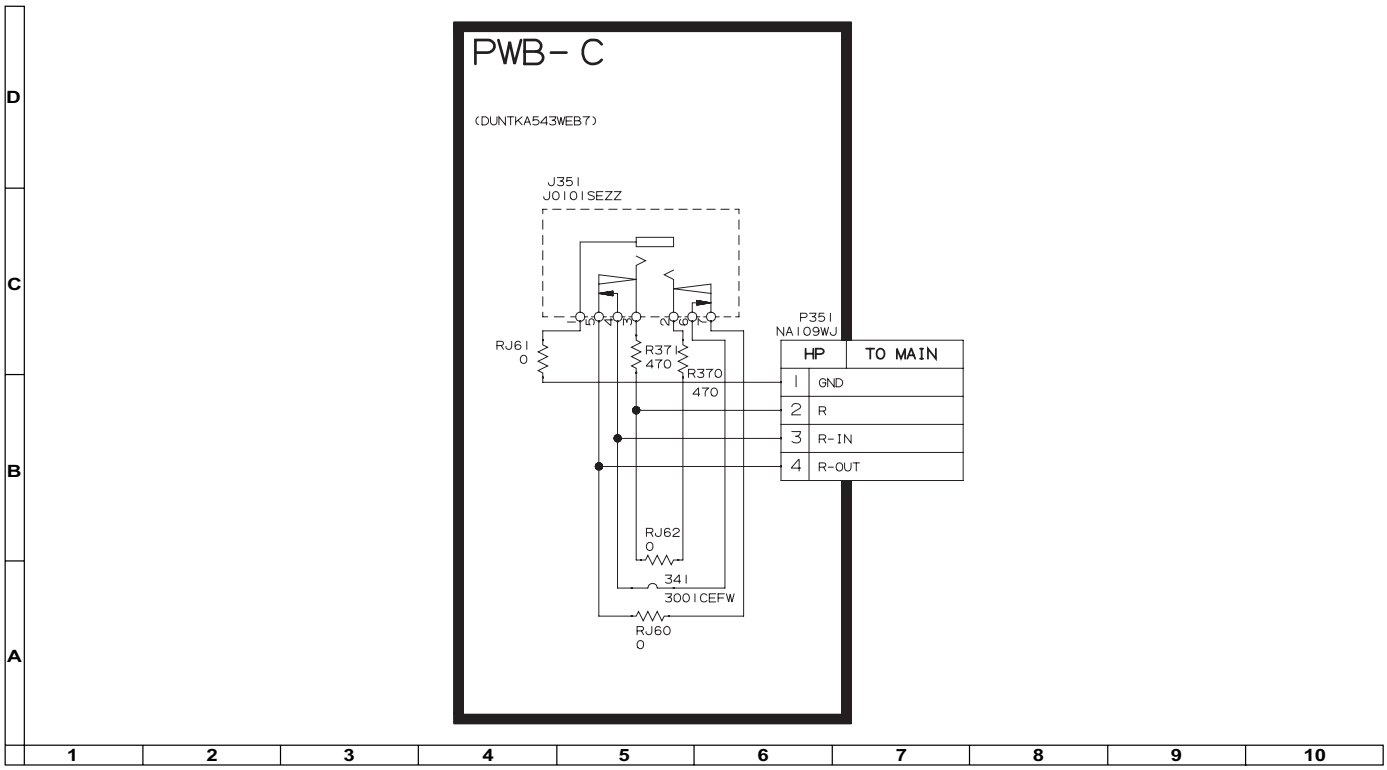



## 3. CRT UNIT-2: 21R2F

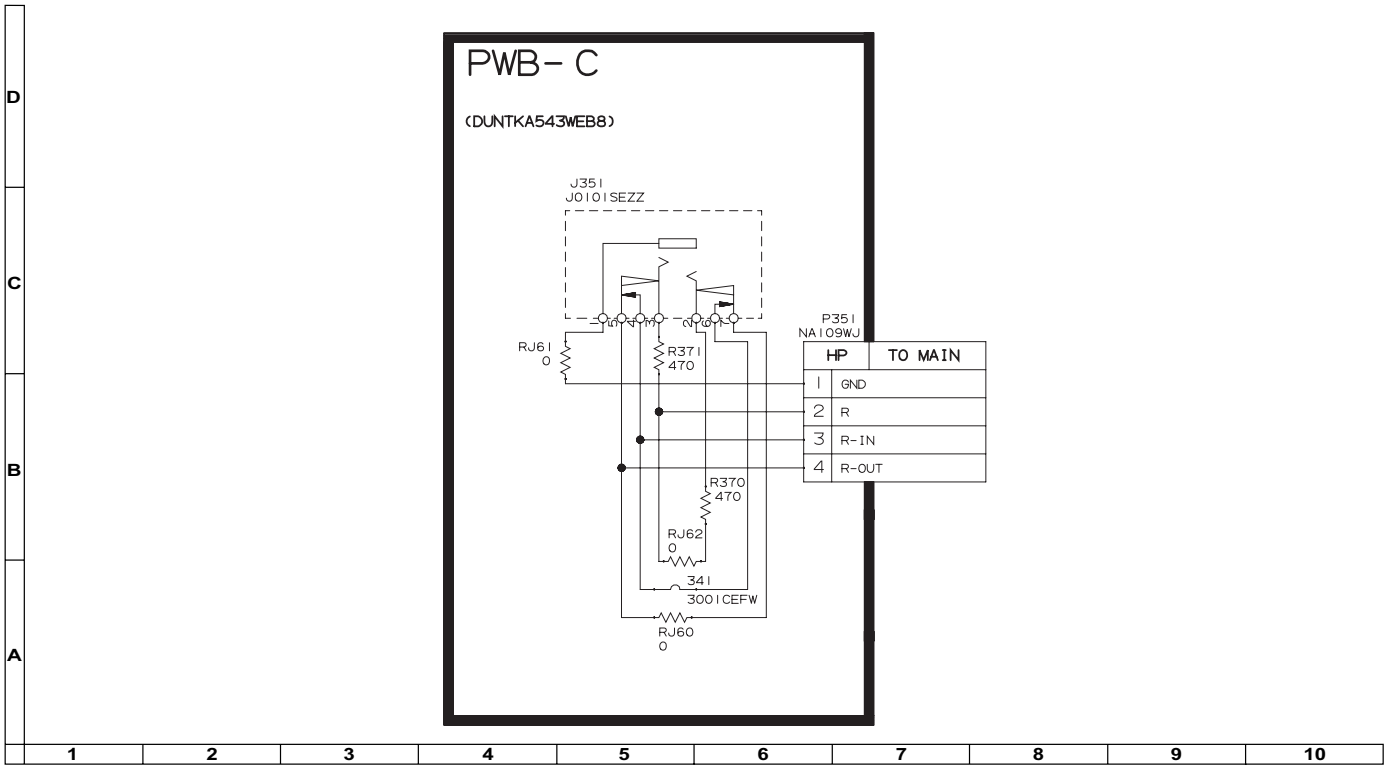


## [2] SCHEMATIC DIAGRAM: HEADPHONE UNIT

### 1. HEADPHONE UNIT: 14R2F

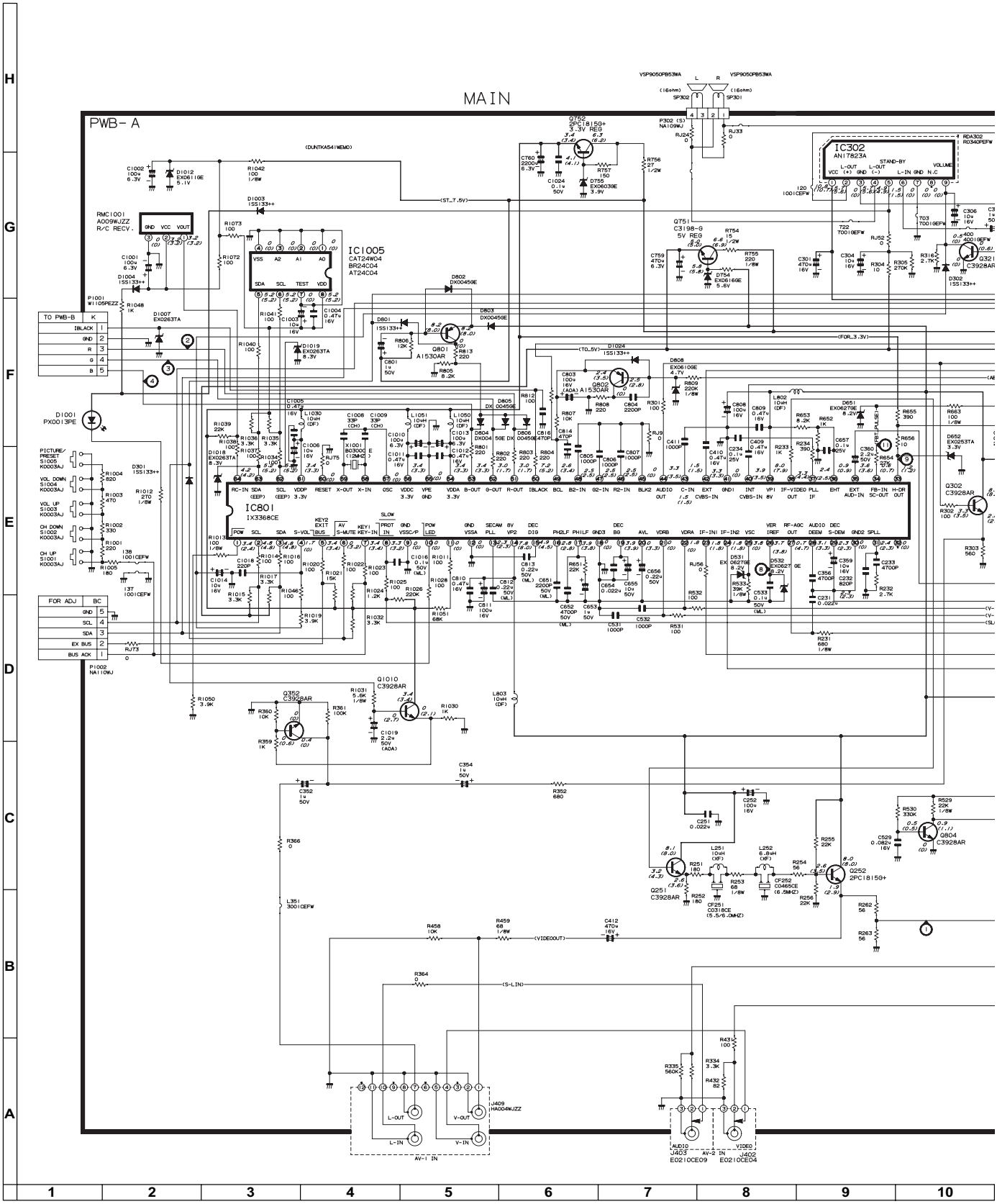


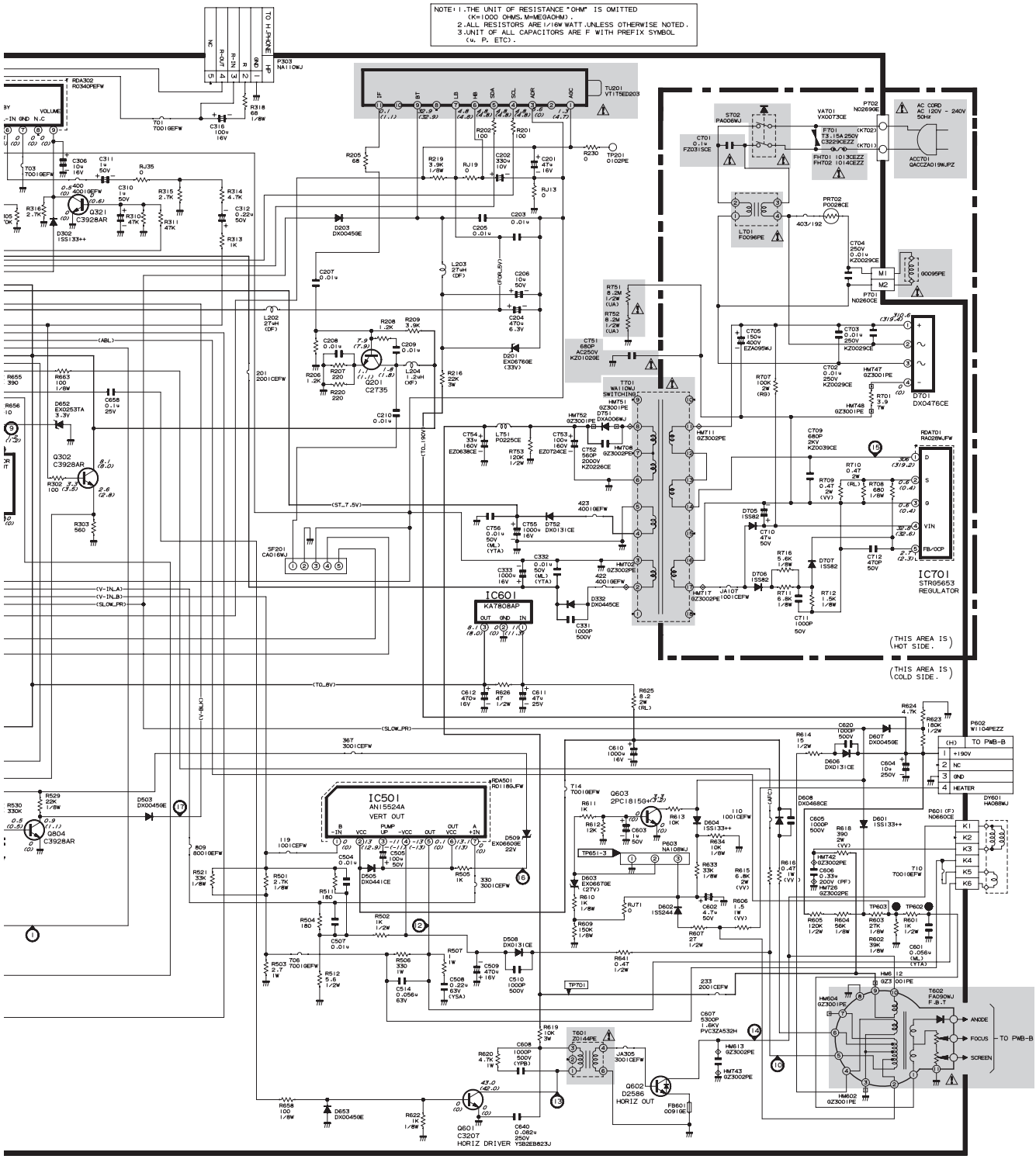

### 2. HEADPHONE UNIT: 21R2F



# [3] SCHEMATIC DIAGRAM: MAIN UNIT

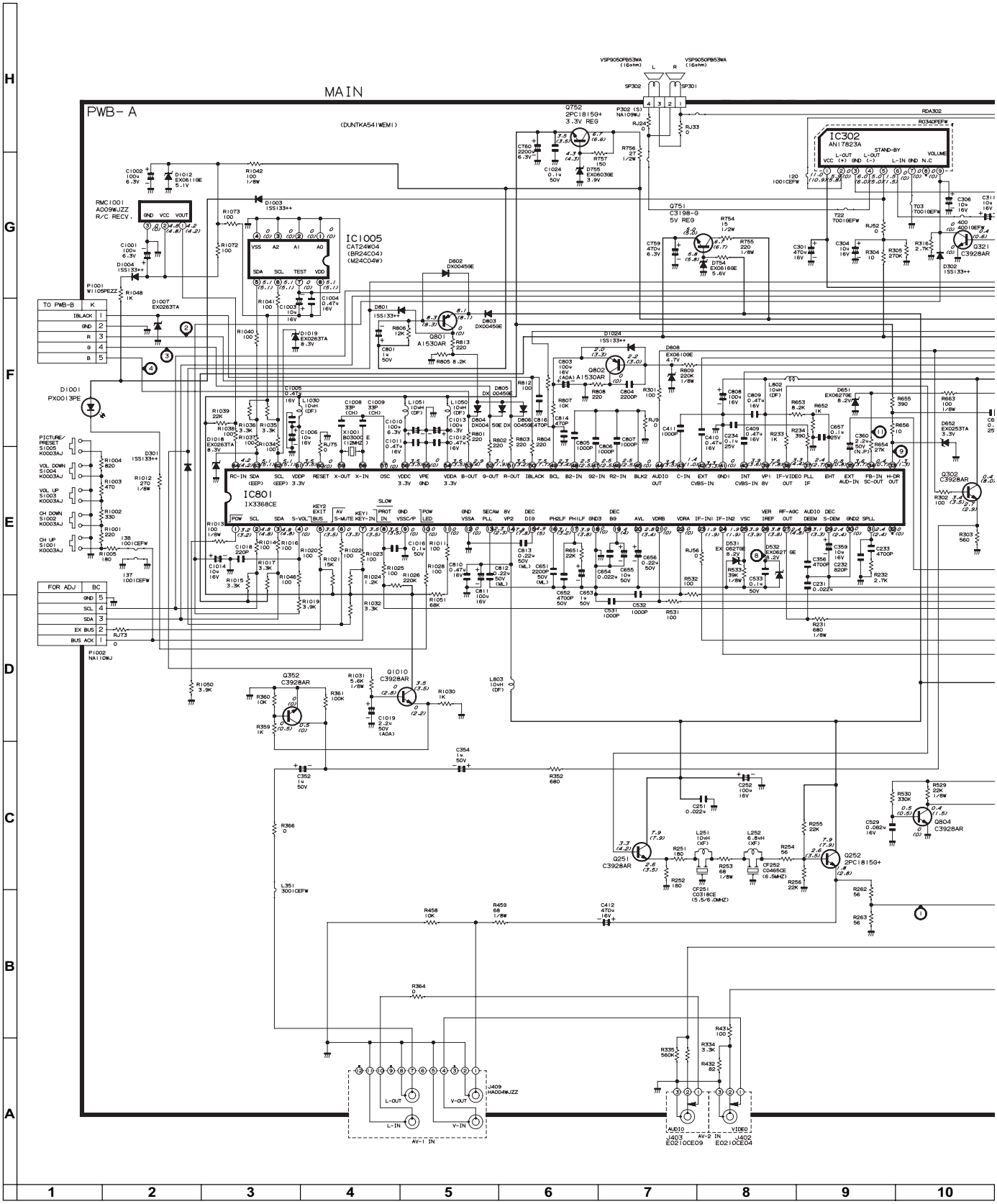
## 1. MAIN UNIT: 14R2F

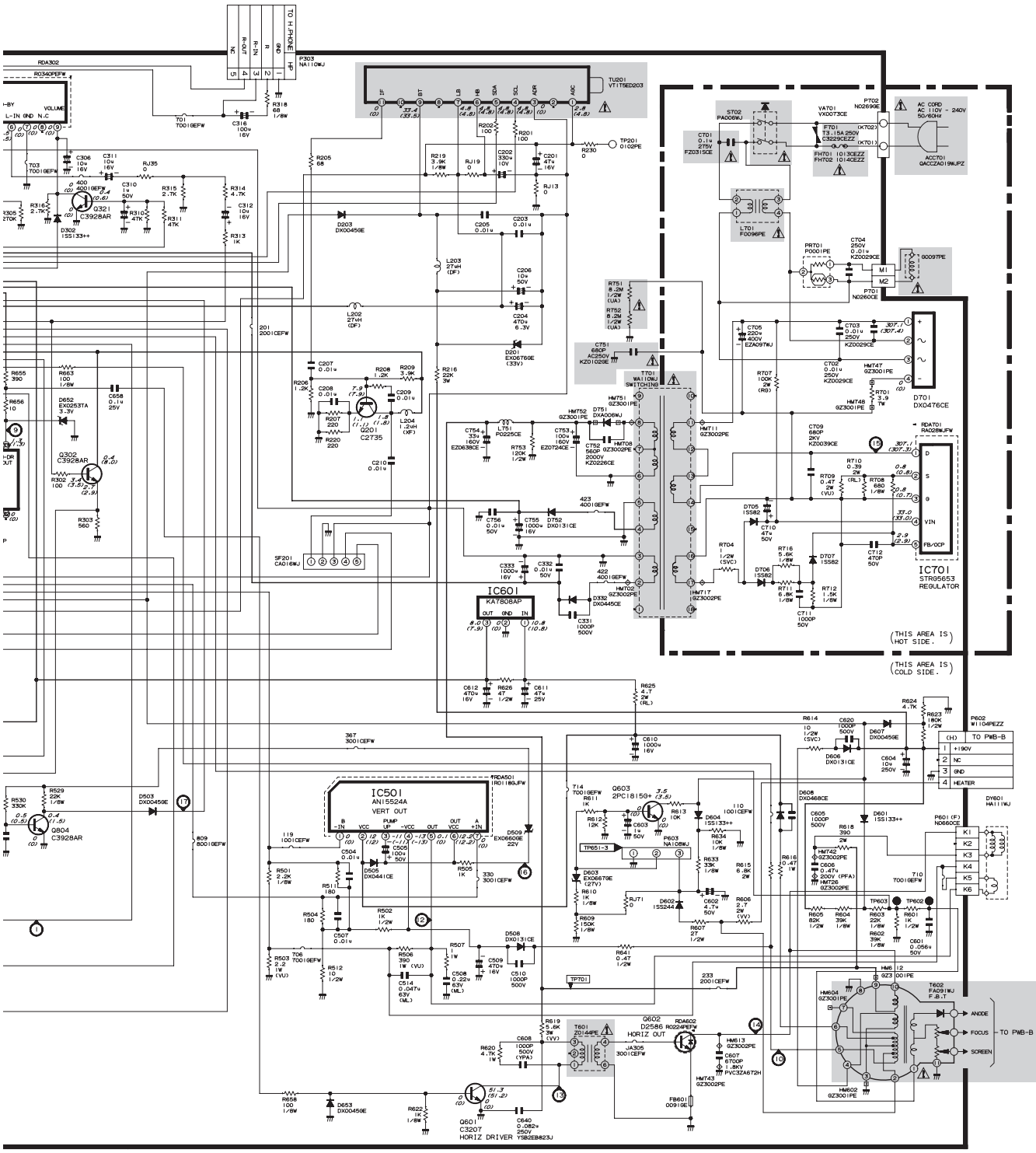





| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

## 2. MAIN UNIT: 21R2F





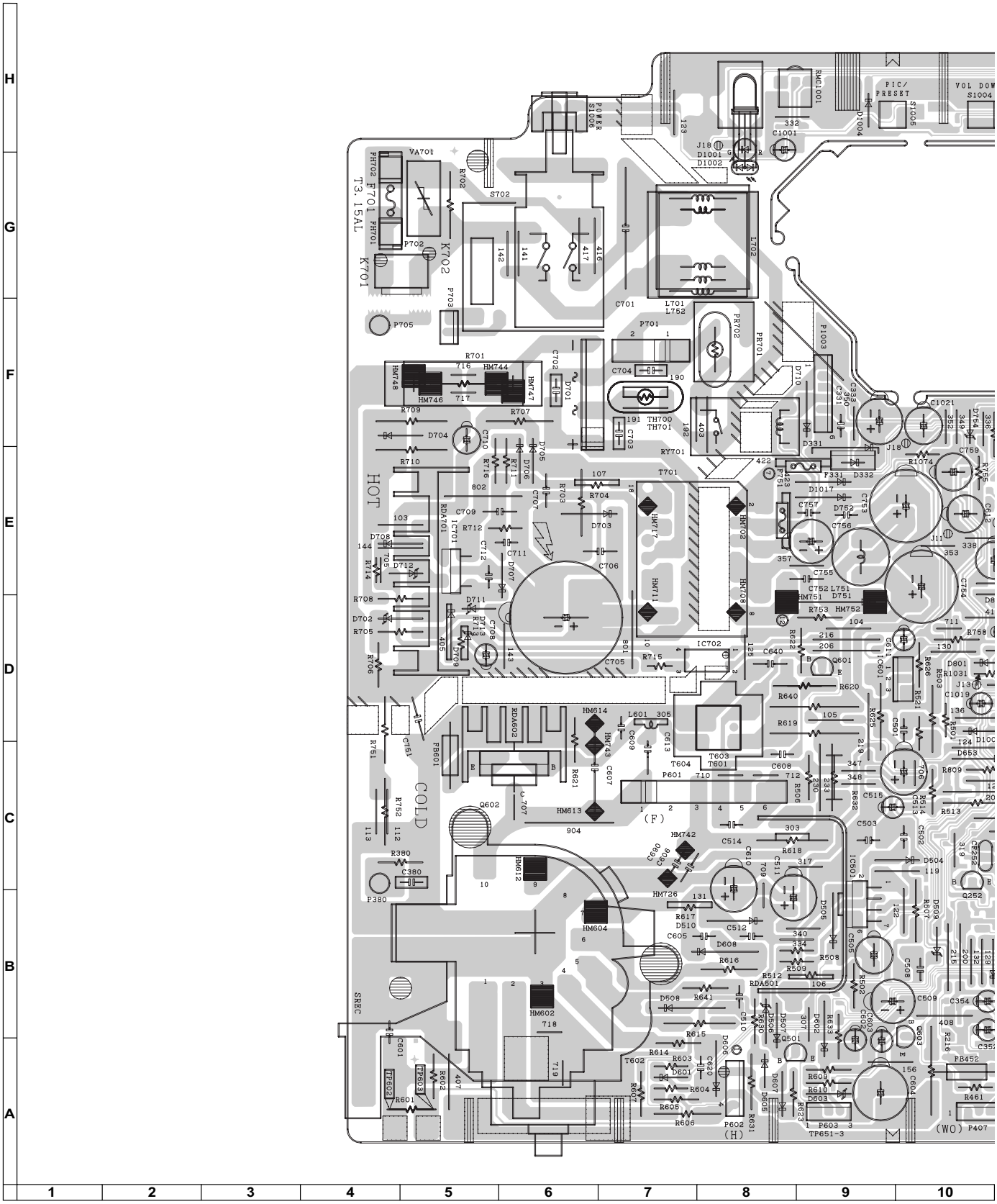

| CRT | DY | C607 | R606 | R512 | R501 | R521 |
|---|---|---|---|---|---|---|
| VB51MAK0950NU | RCILHA111WJZZ | VCFPVC3ZA672H | VRN-RL3DB2RTJ | VRD-RMDHD100J | VRD-RA2BE222J | - |
| VB51JSY635V*S | RCILHA209WJZZ | | | | | |
| VB51QAE320XWS | RCILHA031WJZZ | VCFPVC3ZAT72H | VRN-RL3DB1R5 | VRD-RMDHD5R6J | VRD-RA2BE562J | VRD-RA3BE562J |
| VB540ADACISWS | RCILHA011WJZZ | | | | | |
| VB51KQK99X*6E | RCILHA060WJZZ | | | | | |

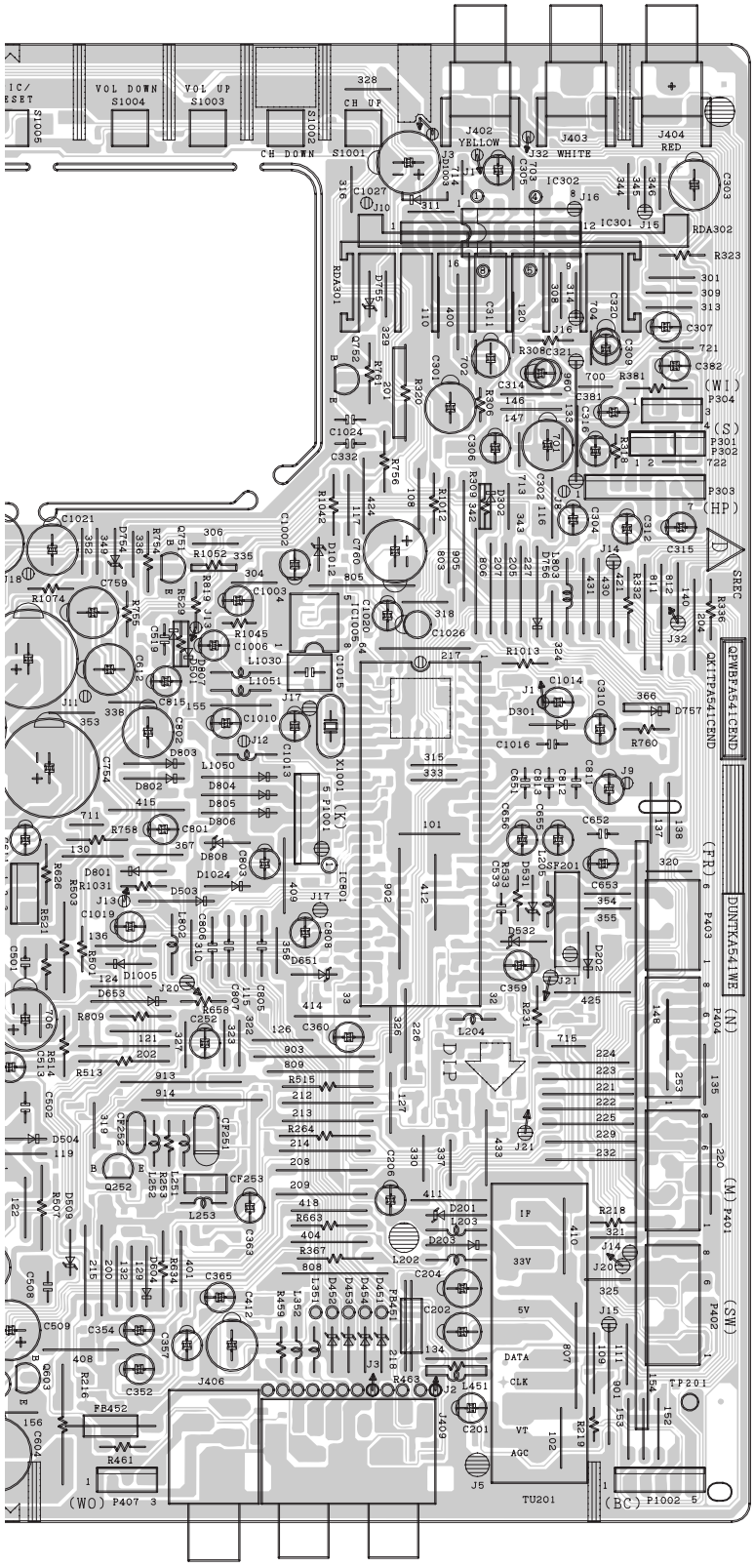
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

# CHAPTER 13. PRINTED WIRING BOARD ASSEMBLIES

## [1] PWB-A: MAIN UNIT

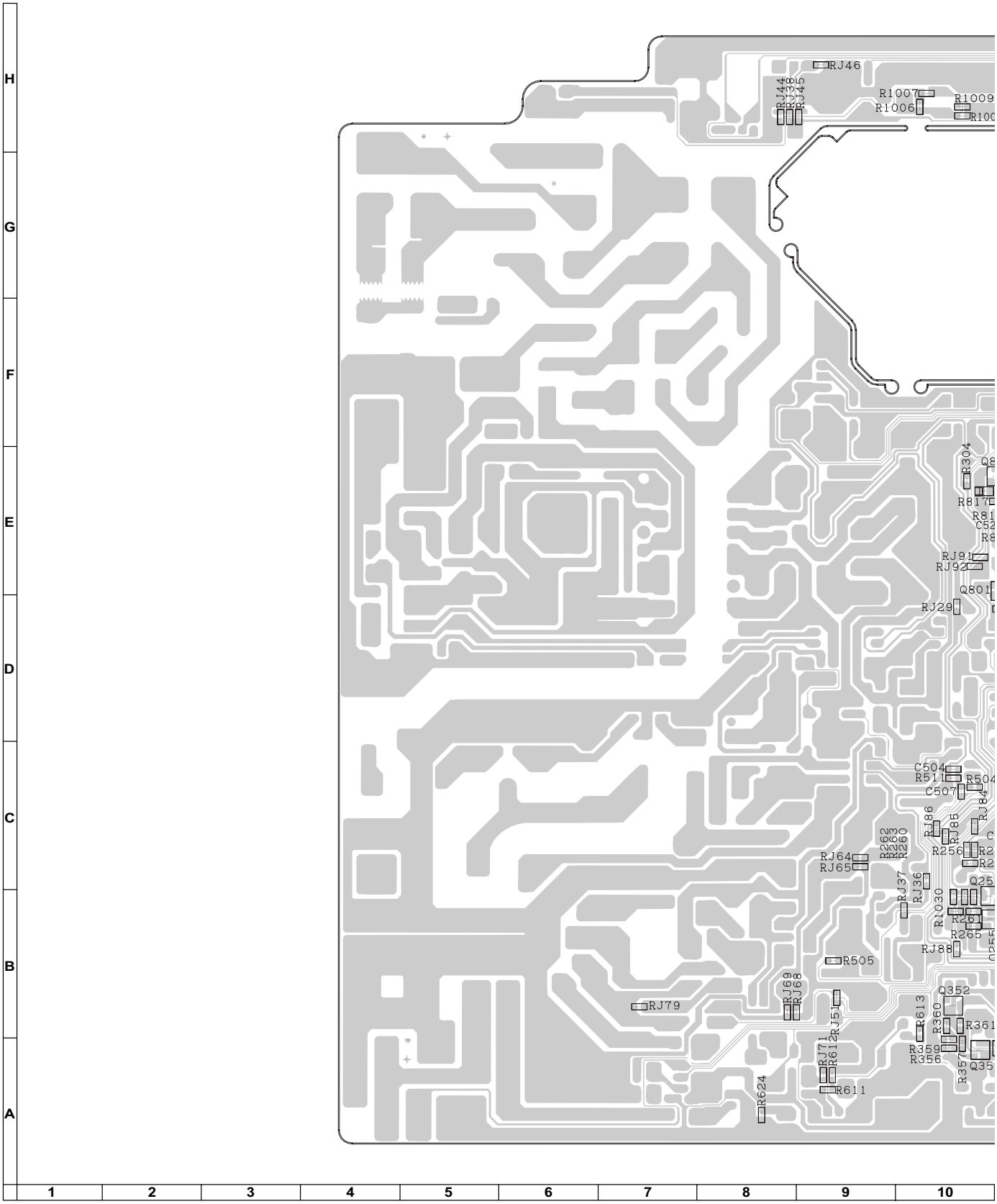
### 1. MAIN UNIT (Component Side)

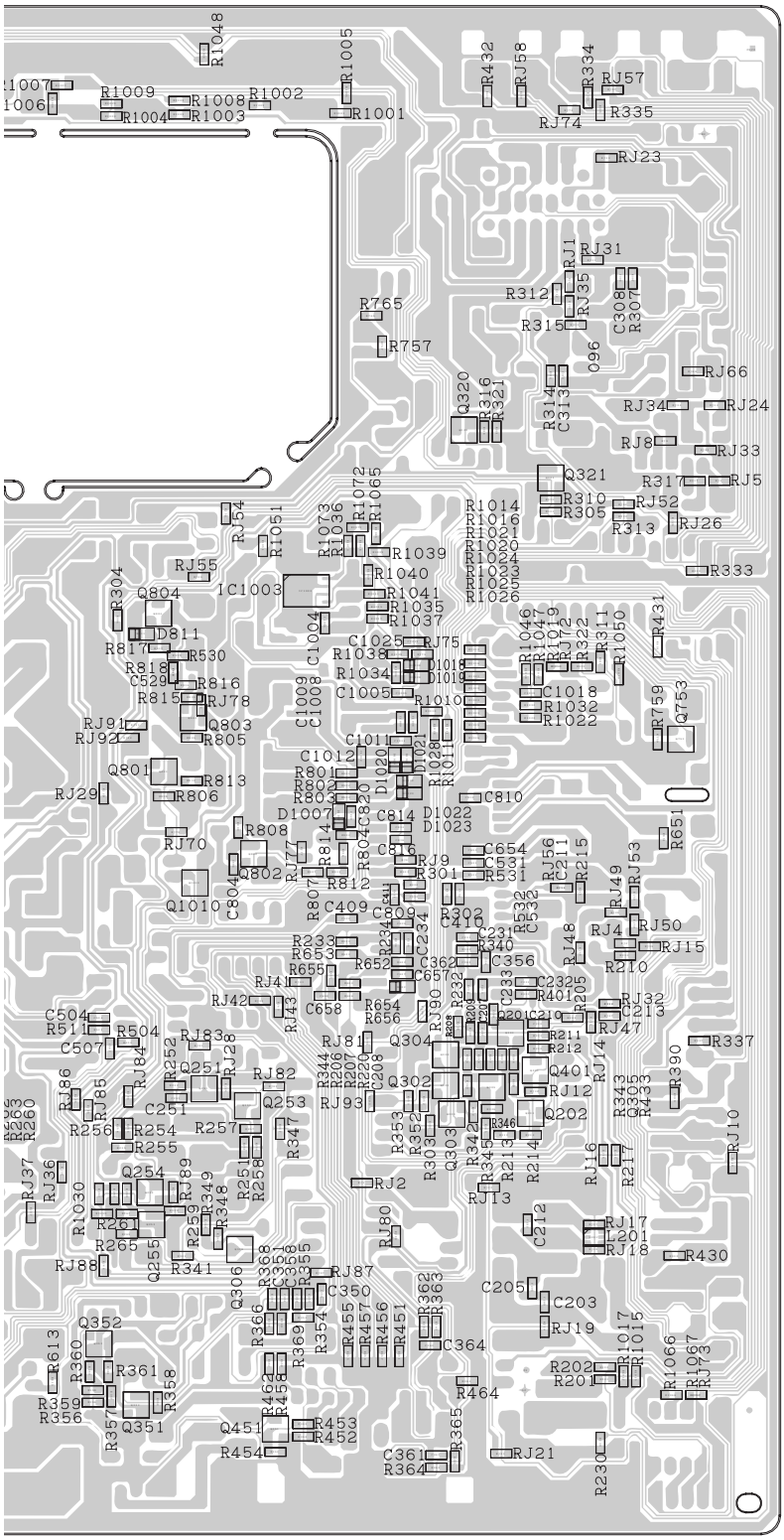





| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

**2. MAIN UNIT (Chip Parts Side)**



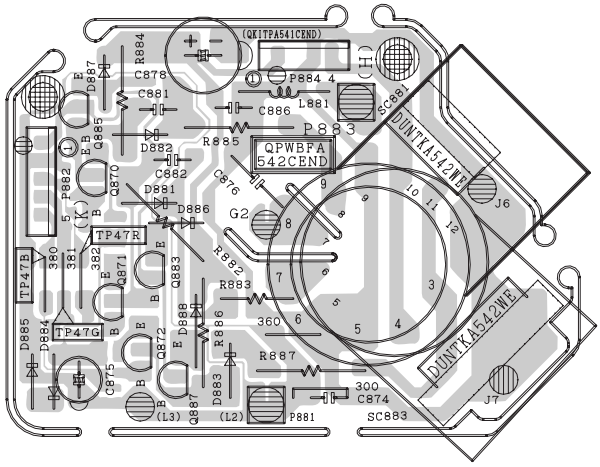


| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

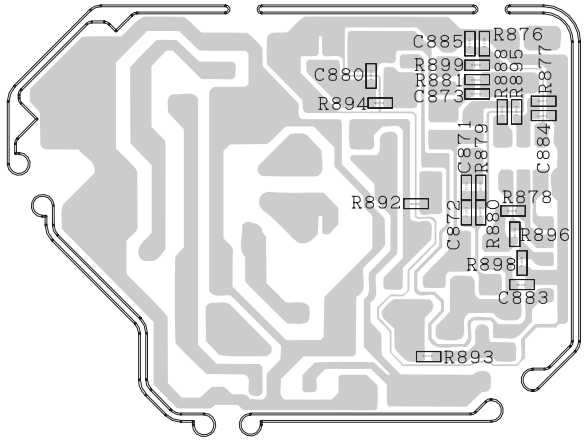
## [2] PWB-B: CRT UNIT

### 1. CRT UNIT (Componet Side) (Chip Parts Side)

Componet Side



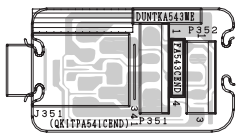

Chip Parts Side



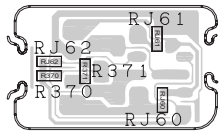

## [3] PWB-C: HEADPHONE UNIT

### 1. HEADPHONE UNIT (Componet Side) (Chip Parts Side)

Componet Side




Chip Parts Side



# SHARP PARTS GUIDE

No. S74Y214R2F///

# MODELS 14R2F 21R2F

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Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.


SHARP CORPORATION



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The contents are subject to change without notice.

| | NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|---|
| | **[1] PICTURE TUBE** | | | | | |
| | | | | | | [MODEL 14R2F] |
| ⚠ | | VB37GDA86X/1E | CB | | R | Picture Tube |
| ⚠ | | RCiLG0095PEZZ | AH | | R | Degaussing Coil |
| ⚠ | DY601 | RCiLHA088WJZZ | AU | | R | Deflection Yoke |
| | | LHLDW0003PEKZ | AB | | R | Holder |
| | | MSPRT0001PEFJ | AC | | R | Spring |
| | | PMAGF3045CEZZ | AG | | R | Magnet |
| | | PSPAG0004PEZZ | AB | | R | Spacer |
| | | QEARC1422PEZZ | AD | | R | Ground-Part |
| | | | | | | * |
| | | | | | | [MODEL 21R2F (CRT-1)] |
| ⚠ | | VB51MAK095XNU | CE | | R | Picture Tube |
| ⚠ | | RCiLG0097PEZZ | AP | | R | Degaussing Coil |
| ⚠ | DY601 | RCiLHA111WJZZ | AY | | R | Deflection Yoke |
| | | LHLDW0003PEKZ | AB | | R | Holder |
| | | LHLDWA021WJKZ | AB | | R | Holder |
| | | MSPRT0001PEFJ | AC | | R | Spring |
| | | PMAGF3045CEZZ | AG | | R | Magnet |
| | | PSPAG0017PEZZ | AC | | R | Spacer |
| | | QEARC2107PEZZ | AE | | R | Ground-Part |
| | | | | | | * |
| | | | | | | [MODEL 21R2F (CRT-2)] |
| ⚠ | | VB51JSY63X/*S | CE | | R | Picture Tube |
| ⚠ | | RCiLHA009WJZZ | BB | | R | Deflection Yoke |
| ⚠ | | VB51QAE320X*S | CG | | R | Picture Tube |
| ⚠ | | RCiLHA031WJZZ | BA | | R | Deflection Yoke |
| ⚠ | | VB540ADAC1S*S | CG | | R | Picture Tube |
| ⚠ | | RCiLHA011WJZZ | AZ | | R | Deflection Yoke |
| ⚠ | | VB51KQK99X/6E | CE | | R | Picture Tube |
| ⚠ | | RCiLHA060WJZZ | AZ | | R | Deflection Yoke |
| ⚠ | | RCiLG0097PEZZ | AP | | R | Degaussing Coil |
| | | LHLDW0003PEKZ | AB | | R | Holder |
| | | LHLDWA021WJKZ | AB | | R | Holder |
| | | MSPRT0001PEFJ | AC | | R | Spring |
| | | PMAGF3045CEZZ | AG | | R | Magnet |
| | | PSPAG0017PEZZ | AC | | R | Spacer |
| | | QEARC2107PEZZ | AE | | R | Ground-Part |
| | **[2] PRINTED WIRING BOARD ASSEMBLIES** | | | | | |
| | | | | | | (NOT REPLACEMENT ITEM) |
| | | DUNTKA541WEM0 | - | | - | MAIN Unit [14R2F] |
| | | DUNTKA541WEM1 | - | | - | MAIN Unit [21R2F] |
| | | DUNTKA542WEG3 | - | | - | CRT Unit [14R2F] |
| | | DUNTKA542WEG4 | - | | - | CRT Unit [21R2F] |
| | | DUNTKA543WEB7 | - | | - | Headphone Unit [14R2F] |
| | | DUNTKA543WEB8 | - | | - | Headphone Unit [21R2F] |
| | **[3] MAIN UNIT** | | | | | |
| | | | | | | PWB-A: DUNTKA541WEM0(14R2F) |
| | | | | | | PWB-A: DUNTKA541WEM1(21R2F) |
| ⚠ | TU201 | VTUVT1T5ED203 | AX | | R | VHF Tuner |
| | IC302 | VHiAN17823A-1 | AG | | R | IC, AN17823A |
| | IC501 | VHiAN15524A-1 | AF | | R | IC, AN15524A |
| | IC601 | VHiKA7808AP-1 | AE | | R | IC, KiA7808APi |
| | IC701 | VHiSTRG5653-1 | AQ | | R | IC, STR-G5653 |
| | IC801 | RH-iX3368CEN9 | BA | | R | IC, TDA9381PS/N3 |
| | IC1005 | VHiCAT24W04-1 | AE | | R | IC, CAT24W04 |
| | Q201 | VS2SC2735//1EY | AC | | R | Transistor, 2SC2735 |
| | Q251 | VS2SC3928AR-1Y | AB | | R | Transistor, 2SC3928AR |
| | Q252 | VS2PC1815G+-1+ | AC | | R | Transistor, 2PC1815G |
| | Q302 | VS2SC3928AR-1Y | AB | | R | Transistor, 2SC3928AR |
| | Q321 | VS2SC3928AR-1Y | AB | | R | Transistor, 2SC3928AR |
| | Q352 | VS2SC3928AR-1Y | AB | | R | Transistor, 2SC3928AR |
| | Q601 | VS2SC3207//-1+ | AC | | R | Transistor, 2SC3207 |
| | Q602 | VS2SD2586//1E | AM | | R | Transistor, 2SD2586 |
| | Q603 | VS2PC1815G+-1+ | AC | | R | Transistor, 2PC1815G |
| | Q751 | VS2SC3198-G-1+ | AA | | R | Transistor, 2SC3198 |
| | Q752 | VS2PC1815G+-1+ | AC | | R | Transistor, 2PC1815G |
| | Q801 | VS2SA1530AR-1Y | AB | | R | Transistor, 2SA1530AR |
| | Q802 | VS2SA1530AR-1Y | AB | | R | Transistor, 2SA1530AR |
| | Q804 | VS2SC3928AR-1Y | AB | | R | Transistor, 2SC3928AR |
| | Q1010 | VS2SC3928AR-1Y | AB | | R | Transistor, 2SC3928AR |
| | D201 | RH-EX0676GEZZY | AA | | R | Zener Diode, 33V |
| | D203 | RH-DX0045GEZZY | AA | | R | Diode |
| | D301 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 |
| | D302 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 |
| | D332 | RH-DX0445CEZZ | AL | | R | Diode |
| | D503 | RH-DX0045GEZZY | AA | | R | Diode |
| | D505 | RH-DX0441CEZZY | AC | | R | Diode |
| | D508 | RH-DX0131CEZZY | AC | | R | Diode |
| | D509 | RH-EX0660GEZZY | AB | | R | Zener Diode, 22V |
| | D531 | RH-EX0627GEZZY | AA | | R | Zener Diode, 8.2V |
| | D532 | RH-EX0627GEZZY | AA | | R | Zener Diode, 8.2V |

| | NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION | |
|---|---|---|---|---|---|---|---|
| | **[3] MAIN UNIT** | | | | | | |
| | D601 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| | D602 | VHD1SS244//-1Y | AB | | R | Diode, 1SS244 | |
| | D603 | RH-EX0667GEZZY | AA | | R | Zener Diode, 27V | |
| | D604 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| | D606 | RH-DX0131CEZZY | AC | | R | Diode | |
| | D607 | RH-DX0045GEZZY | AA | | R | Diode | |
| | D608 | RH-DX0468CEZZ | AE | | R | Diode | |
| | D651 | RH-EX0627GEZZY | AA | | R | Zener Diode, 8.2V | |
| | D652 | RH-EX0253TAZZY | AC | | R | Zener Diode, 3.3V | |
| | D653 | RH-DX0045GEZZY | AA | | R | Diode | |
| | D701 | RH-DX0476CEZZ | AG | | R | Diode | |
| | D705 | VHD1SS82///1AY | AC | | R | Diode, 1SS82 | |
| | D706 | VHD1SS82///1AY | AC | | R | Diode, 1SS82 | |
| | D707 | VHD1SS82///1AY | AC | | R | Diode, 1SS82 | |
| | D751 | RH-DXA006WJZZ | AD | | R | Diode | |
| | D752 | RH-DX0131CEZZY | AC | | R | Diode | |
| | D754 | RH-EX0616GEZZY | AA | | R | Zener Diode, 5.6V | |
| | D755 | RH-EX0603GEZZY | AA | | R | Zener Diode, 3.9V | |
| | D801 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| | D802 | RH-DX0045GEZZY | AA | | R | Diode | |
| | D803 | RH-DX0045GEZZY | AA | | R | Diode | |
| | D804 | RH-DX0045GEZZY | AA | | R | Diode | |
| | D805 | RH-DX0045GEZZY | AA | | R | Diode | |
| | D806 | RH-DX0045GEZZY | AA | | R | Diode | |
| | D808 | RH-EX0610GEZZY | AA | | R | Zener Diode, 4.7V | |
| | D1001 | RH-PX0013PEZZ | AC | | R | Photodiode | |
| | D1003 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| | D1004 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| | D1007 | RH-EX0263TAZZY | AC | | R | Zener Diode, 8.3V | |
| | D1012 | RH-EX0611GEZZY | AA | | R | Zener Diode, 5.1V | |
| | D1018 | RH-EX0263TAZZY | AC | | R | Zener Diode, 8.3V | |
| | D1019 | RH-EX0263TAZZY | AC | | R | Zener Diode, 8.3V | |
| | D1024 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| ⚠ | VA701 | RH-VX0073CEZZ | AD | | R | Varistor | |
| | PR701 | RMPTP0001PEZZ | AN | | R | Packaged Circuit | [21R2F] |
| | PR702 | RMPTP0028CEZZ | AG | | R | Packaged Circuit | [14R2F] |
| | X1001 | RCRSB0300CEZZ+ | AE | | R | Crystal, 12.0MHz | |
| | CF251 | RFiLC0318CEZZ | AG | | R | Filter | |
| | CF252 | RFiLC0465CEZZ | AD | | R | Filter | |
| | L202 | VP-DF270K0000Y | AB | | R | Peaking 27μH | |
| | L203 | VP-DF270K0000Y | AB | | R | Peaking 27μH | |
| | L204 | VP-XF1R2K0000Y | AB | | R | Peaking 1.2μH | |
| | L251 | VP-XF100K0000Y | AB | | R | Peaking 10μH | |
| | L252 | VP-XF6R8K0000Y | AB | | R | Peaking 6.8μH | |
| ⚠ | L701 | RCiLF0096PEZZ | AF | | R | Coil | |
| | L751 | RCiLP0225CEZZ | AF | | R | Coil | |
| | L802 | VP-DF100K0000Y | AB | | R | Peaking 10μH | |
| | L803 | VP-DF100K0000Y | AB | | R | Peaking 10μH | |
| | L1030 | VP-DF100K0000Y | AB | | R | Peaking 10μH | |
| | L1050 | VP-DF100K0000Y | AB | | R | Peaking 10μH | |
| | L1051 | VP-DF100K0000Y | AB | | R | Peaking 10μH | |
| | SF201 | RFiLCA016WJZZ | AH | | R | Filter | |
| ⚠ | T601 | RTRNZ0144PEZZ | AE | | R | Transformer | |
| ⚠ | T602 | RTRNFA090WJZZ | AT | | R | H-Volt Transformer | [14R2F] |
| ⚠ | T602 | RTRNFA091WJZZ | | | R | H-Volt Transformer | [21R2F] |
| ⚠ | T701 | RTRNWA110WJZZ | AH | | R | Transformer | |
| | C201 | VCEA0A1CW476M+ | AB | | R | Capacitor, 47 16V Electrolytic | |
| | C202 | VCEA0A1AW337M+ | AC | | R | Capacitor, 330 10V Electrolytic | |
| | C203 | VCKYCY1HF103ZY | AA | | R | Capacitor, 0.01 50V Ceramic | |
| | C204 | VCEA0A0JW477M+ | AC | | R | Capacitor, 470 6.3V Electrolytic | |
| | C205 | VCKYCY1HF103ZY | AA | | R | Capacitor, 0.01 50V Ceramic | |
| | C206 | VCEA0A1HW106M+ | AB | | R | Capacitor, 10 50V Electrolytic | |
| | C207 | VCKYCY1HF103ZY | AA | | R | Capacitor, 0.01 50V Ceramic | |
| | C208 | VCKYCY1HF103ZY | AA | | R | Capacitor, 0.01 50V Ceramic | |
| | C209 | VCKYCY1HF103ZY | AA | | R | Capacitor, 0.01 50V Ceramic | |
| | C210 | VCKYCY1HF103ZY | AA | | R | Capacitor, 0.01 50V Ceramic | |
| | C231 | VCKYCY1HF223ZY | AB | | R | Capacitor, 0.022 50V Ceramic | |
| | C232 | VCKYCY1HB821KY | AA | | R | Capacitor, 820p 50V Ceramic | |
| | C233 | VCKYCY1HB472KY | AA | | R | Capacitor, 4700p 50V Ceramic | |
| | C234 | VCKYCY1EF104ZY | AA | | R | Capacitor, 0.1 25V Ceramic | |
| | C251 | VCKYCY1HF223ZY | AB | | R | Capacitor, 0.022 50V Ceramic | |
| | C252 | VCEA0A1CW107M+ | AC | | R | Capacitor, 100 16V Electrolytic | |
| | C301 | VCEA0A1CW477M+ | AC | | R | Capacitor, 470 16V Electrolytic | |
| | C304 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic | |
| | C306 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic | |
| | C310 | VCEA0A1HW105M+ | AB | | R | Capacitor, 1 50V Electrolytic | |
| | C311 | VCEA0A1HW105M+ | AB | | R | Capacitor, 1 50V Electrolytic | [14R2F] |
| | C311 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic | [21R2F] |
| | C312 | VCEA0A1HW224M+ | AB | | R | Capacitor, 0.22 50V Electrolytic | [14R2F] |
| | C312 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic | [21R2F] |
| | C316 | VCEA0A1CW107M+ | AC | | R | Capacitor, 100 16V Electrolytic | |
| | C331 | VCKYPA2HB102K+ | AA | | R | Capacitor, 1000p 500V Ceramic | |
| | C332 | VCQYTA1HM103J+ | AB | | R | Capacitor, 0.01 50V Mylar | |
| | C333 | VCEA0A1CW108M+ | AD | | R | Capacitor, 1000 16V Electrolytic | |
| | C352 | VCEA0A1HW105M+ | AB | | R | Capacitor, 1 50V Electrolytic | |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[3] MAIN UNIT** | | | | | |
| C354 | VCEA0A1HW105M+ | AB | | R | Capacitor, 1 50V Electrolytic |
| C356 | VCKYCY1HB472KY | AA | | R | Capacitor, 4700p 50V Ceramic |
| C359 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic |
| C360 | VCE9GA1HW225M+ | AB | | R | Capacitor, 2.2 50V Electrolytic_ (N.P) |
| C409 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic |
| C410 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic |
| C411 | VCKYCY1HB102KY | AA | | R | Capacitor, 1000p 50V Ceramic |
| C412 | VCEA0A1CW477M+ | AC | | R | Capacitor, 470 16V Electrolytic |
| C504 | VCKYCY1HB103KY | AA | | R | Capacitor, 0.01 50V Ceramic |
| C505 | VCEA0A1HW107M+ | AB | | R | Capacitor, 100 50V Electrolytic |
| C507 | VCKYCY1HB103KY | AA | | R | Capacitor, 0.01 50V Ceramic |
| C508 | VCFYSA1JB224J+ | AD | | R | Capacitor, 0.22 63V Mylar |
| C509 | VCEA0A1CW477M+ | AC | | R | Capacitor, 470 16V Electrolytic |
| C510 | VCKYPA2HB102K+ | AA | | R | Capacitor, 1000p 500V Ceramic |
| C514 | VCFYSA1JB563J+ | AD | | R | Capacitor, 0.056 63V Mylar [14R2F] |
| C514 | VCFYSA1JB473J+ | AD | | R | Capacitor, 0.047 63V Mylar [21R2F] |
| C529 | VCKYCY1CB823KY | AH | | R | Capacitor, 0.082 16V Ceramic |
| C531 | VCKYCY1HB102KY | AA | | R | Capacitor, 1000p 50V Ceramic |
| C532 | VCKYCY1HB102KY | AA | | R | Capacitor, 1000p 50V Ceramic |
| C533 | VCQYTA1HM104J+ | AB | | R | Capacitor, 0.1 50V Mylar |
| C590 | VCKYPA1HF103Z+ | AA | | R | Capacitor, 0.01 50V Ceramic |
| C601 | VCQYTA1HM563J+ | AB | | R | Capacitor, 0.056 50V Mylar |
| C602 | VCEA0A1HW475M+ | AB | | R | Capacitor, 4.7 50V Electrolytic |
| C603 | VCEA0A1HW105M+ | AB | | R | Capacitor, 1 50V Electrolytic |
| C604 | VCEA0A2EW106M+ | AD | | R | Capacitor, 10 250V Electrolytic |
| C605 | VCKYPA2HB102K+ | AA | | R | Capacitor, 1000p 500V Ceramic |
| C606 | VCFPFA2EB334J | AD | | R | Capacitor, 0.33 250V Metalized Polypro Film [14R2F] |
| C606 | VCFPVC2DB474J | AD | | R | Capacitor, 0.47 200V Metalized Polypro Film [21R2F] |
| C607 | VCFPVC3ZA532H | AD | | R | Capacitor, 5300p 1800V Metalized Polypro Film [14R2F] |
| C607 | VCFPVC3ZA672H | AD | | R | Capacitor, 6700p 1800V Metalized Polypro Film [21R2F] |
| C608 | VCKYPA2HB102K+ | AA | | R | Capacitor, 1000p 500V Ceramic |
| C610 | VCEA0A1CW108M+ | AD | | R | Capacitor, 1000 16V Electrolytic |
| C611 | VCEA0A1EW476M+ | AB | | R | Capacitor, 47 25V Electrolytic |
| C612 | VCEA0A1CW477M+ | AC | | R | Capacitor, 470 16V Electrolytic |
| C620 | VCKYPA2HB102K+ | AA | | R | Capacitor, 1000p 500V Ceramic |
| C640 | VCFYSB2EB823J | AD | | R | Capacitor, 0.082 250V Mylar |
| C651 | VCQYTA1HM222J+ | AA | | R | Capacitor, 2200p 50V Mylar |
| C652 | VCQYTA1HM472J+ | AB | | R | Capacitor, 4700p 50V Mylar |
| C653 | VCEA0A1HW105M+ | AB | | R | Capacitor, 1 50V Electrolytic |
| C654 | VCKYCY1HF223ZY | AB | | R | Capacitor, 0.022 50V Ceramic |
| C655 | VCEA0A1HW106M+ | AB | | R | Capacitor, 10 50V Electrolytic |
| C656 | VCEA0A1HW224M+ | AB | | R | Capacitor, 0.22 50V Electrolytic |
| C657 | VCKYCY1EF104ZY | AA | | R | Capacitor, 0.1 25V Ceramic |
| C658 | VCKYCY1EF104ZY | AA | | R | Capacitor, 0.1 25V Ceramic |
| ⚠ C701 | RC-FZ031SCEZZ | AD | | R | Capacitor, 0.1 AC275V Polypropylene |
| C702 | RC-KZ0029CEZZ+ | AC | | R | Capacitor, 0.01 AC250V Ceramic |
| C703 | RC-KZ0029CEZZ+ | AC | | R | Capacitor, 0.01 AC250V Ceramic |
| C704 | RC-KZ0029CEZZ+ | AC | | R | Capacitor, 0.01 AC250V Ceramic |
| C705 | RC-EZA095WJZZ | AK | | R | Capacitor, 150 400V Electrolytic [14R2F] |
| C705 | RC-EZA097WJZZ | AM | | R | Capacitor, 220 400V Electrolytic [21R2F] |
| C709 | RC-KZ0039CEZZ+ | AC | | R | Capacitor, 680p 2kV Ceramic |
| C710 | VCEA0A1HW476M+ | AB | | R | Capacitor, 47 50V Electrolytic |
| C711 | VCKYPA1HB102K+ | AA | | R | Capacitor, 1000p 50V Ceramic |
| C712 | VCKYPA1HB471K+ | AA | | R | Capacitor, 470p 50V Ceramic |
| ⚠ C751 | RC-KZ0102GEZZ | AE | | R | Capacitor, 680p AC250V Ceramic |
| C752 | RC-KZ0226CEZZ+ | AC | | R | Capacitor, 560p 2kV Ceramic |
| C753 | RC-EZ0724CEZZ | AG | | R | Capacitor, 100 160V Electrolytic |
| C754 | RC-EZ0638CEZZ | AG | | R | Capacitor, 33 160V Electrolytic |
| C755 | VCEA0A1CW108M+ | AD | | R | Capacitor, 1000 16V Electrolytic |
| C756 | VCQYTA1HM103J+ | AB | | R | Capacitor, 0.01 50V Mylar |
| C759 | VCEA0A0JW477M+ | AC | | R | Capacitor, 470 6.3V Electrolytic |
| C760 | VCEA0A0JW228M+ | AD | | R | Capacitor, 2200 6.3V Electrolytic |
| C801 | VCEA0A1HW105M+ | AB | | R | Capacitor, 1 50V Electrolytic |
| C803 | VCEA0A1CW107M+ | AC | | R | Capacitor, 100 16V Electrolytic |
| C804 | VCKYCY1HB222KY | AA | | R | Capacitor, 2200p 50V Ceramic |
| C805 | VCKYD41HB102KY | AA | | R | Capacitor, 1000p 50V Ceramic |
| C806 | VCKYD41HB102KY | AA | | R | Capacitor, 1000p 50V Ceramic |
| C807 | VCKYD41HB102KY | AA | | R | Capacitor, 1000p 50V Ceramic |
| C808 | VCEA0A1CW107M+ | AC | | R | Capacitor, 100 16V Electrolytic |
| C809 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic |
| C810 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic |
| C811 | VCEA0A1CW107M+ | AC | | R | Capacitor, 100 16V Electrolytic |
| C812 | VCFYFA1HA224J+ | AB | | R | Capacitor, 0.22 50V Mylar |
| C813 | VCFYFA1HA224J+ | AB | | R | Capacitor, 0.22 50V Mylar |
| C814 | VCKYCY1HB471KY | AA | | R | Capacitor, 470p 50V Ceramic |
| C816 | VCKYCY1HB471KY | AA | | R | Capacitor, 470p 50V Ceramic |
| C1001 | VCEA0A0JW107M+ | AB | | R | Capacitor, 100 6.3V Electrolytic |
| C1002 | VCEA0A0JW107M+ | AB | | R | Capacitor, 100 6.3V Electrolytic |
| C1003 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic |
| C1004 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic |
| C1005 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic |
| C1006 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic |
| C1008 | VCCCCY1HH330JY | AA | | R | Capacitor, 33p 50V Ceramic |
| C1009 | VCCCCY1HH330JY | AA | | R | Capacitor, 33p 50V Ceramic |
| C1010 | VCEA0A0JW107M+ | AB | | R | Capacitor, 100 6.3V Electrolytic |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION | |
|---|---|---|---|---|---|---|
| **[3] MAIN UNIT** | | | | | | |
| C1011 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic | |
| C1012 | VCKYCY1CF474ZY | AB | | R | Capacitor, 0.47 16V Ceramic | |
| C1013 | VCEA0A0JW107M+ | AB | | R | Capacitor, 100 6.3V Electrolytic | |
| C1014 | VCEA0A1CW106M+ | AB | | R | Capacitor, 10 16V Electrolytic | |
| C1016 | VCQYTA1HM104J+ | AB | | R | Capacitor, 0.1 50V Mylar | |
| C1018 | VCKYCY1HB221KY | AA | | R | Capacitor, 220p 50V Ceramic | |
| C1019 | VCEA0A1HW225M+ | AB | | R | Capacitor, 2.2 50V Electrolytic | |
| C1024 | VCQYTA1HM104J+ | AB | | R | Capacitor, 0.1 50V Mylar | |
| R201 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide | |
| R202 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide | |
| R205 | VRS-CY1JF680JY | AA | | R | Resistor, 68 1/16W Metal Oxide | |
| R206 | VRS-CY1JF122JY | AA | | R | Resistor, 1.2k 1/16W Metal Oxide | |
| R207 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide | |
| R208 | VRS-CY1JF122JY | AA | | R | Resistor, 1.2k 1/16W Metal Oxide | |
| R209 | VRS-CY1JF392JY | AA | | R | Resistor, 3.9k 1/16W Metal Oxide | |
| R216 | VRS-RG3LB223J+ | AC | | R | Resistor, 22k 3W Metal Oxide | |
| R219 | VRD-RA2BE392JY | AA | | R | Resistor, 3.9k 1/8W Carbon | |
| R220 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide | |
| R230 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide | |
| R231 | VRD-RA2BE681JY | AA | | R | Resistor, 680 1/8W Carbon | |
| R232 | VRS-CY1JF272JY | AA | | R | Resistor, 2.7k 1/16W Metal Oxide | |
| R233 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide | |
| R234 | VRS-CY1JF391JY | AA | | R | Resistor, 390 1/16W Metal Oxide | |
| R251 | VRS-CY1JF181JY | AA | | R | Resistor, 180 1/16W Metal Oxide | |
| R252 | VRS-CY1JF181JY | AA | | R | Resistor, 180 1/16W Metal Oxide | |
| R253 | VRD-RA2BE680JY | AA | | R | Resistor, 68 1/8W Carbon | |
| R254 | VRS-CY1JF560JY | AA | | R | Resistor, 56 1/16W Metal Oxide | |
| R255 | VRS-CY1JF223JY | AA | | R | Resistor, 22k 1/16W Metal Oxide | |
| R256 | VRS-CY1JF223JY | AA | | R | Resistor, 22k 1/16W Metal Oxide | |
| R262 | VRS-CY1JF560JY | AA | | R | Resistor, 56 1/16W Metal Oxide | |
| R263 | VRS-CY1JF560JY | AA | | R | Resistor, 56 1/16W Metal Oxide | |
| R301 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide | |
| R302 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide | |
| R303 | VRS-CY1JF561JY | AA | | R | Resistor, 560 1/16W Metal Oxide | |
| R304 | VRS-CY1JF100JY | AA | | R | Resistor, 10 1/16W Metal Oxide | |
| R305 | VRS-CY1JF274JY | AA | | R | Resistor, 270k 1/16W Metal Oxide | |
| R310 | VRS-CY1JF473JY | AA | | R | Resistor, 47k 1/16W Metal Oxide | |
| R311 | VRS-CY1JF473JY | AA | | R | Resistor, 47k 1/16W Metal Oxide | |
| R313 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide | |
| R314 | VRS-CY1JF472JY | AA | | R | Resistor, 4.7k 1/16W Metal Oxide | |
| R315 | VRS-CY1JF272JY | AA | | R | Resistor, 2.7k 1/16W Metal Oxide | |
| R316 | VRS-CY1JF272JY | AA | | R | Resistor, 2.7k 1/16W Metal Oxide | |
| R318 | VRD-RA2BE680JY | AA | | R | Resistor, 68 1/8W Carbon | |
| R334 | VRS-CY1JF332JY | AA | | R | Resistor, 3.3k 1/16W Metal Oxide | |
| R335 | VRS-CY1JF564JY | AA | | R | Resistor, 560k 1/16W Metal Oxide | |
| R352 | VRS-CY1JF681JY | AA | | R | Resistor, 680 1/16W Metal Oxide | |
| R359 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide | |
| R360 | VRS-CY1JF103JY | AA | | R | Resistor, 10k 1/16W Metal Oxide | |
| R361 | VRS-CY1JF104JY | AA | | R | Resistor, 100k 1/16W Metal Oxide | |
| R364 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide | |
| R366 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide | |
| R431 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide | |
| R432 | VRS-CY1JF820JY | AA | | R | Resistor, 82 1/16W Metal Oxide | |
| R458 | VRS-CY1JF103JY | AA | | R | Resistor, 10k 1/16W Metal Oxide | |
| R459 | VRD-RA2BE680JY | AA | | R | Resistor, 68 1/8W Carbon | |
| R501 | VRD-RA2BE272JY | AA | | R | Resistor, 2.7k 1/8W Carbon | [14R2F] |
| R501 | VRD-RA2BE222JY | AA | | R | Resistor, 2.2k 1/8W Carbon | [21R2F] |
| R502 | VRD-RM2HD102JY | AA | | R | Resistor, 1k 1/2W Carbon | |
| R503 | VRN-RL3AB2R7J+ | AB | | R | Resistor, 2.7 1W Metal Film | [14R2F] |
| R503 | VRN-RL3AB2R2J+ | | | R | Resistor, 2.2 1W Metal Film | [21R2F] |
| R504 | VRS-CY1JF181JY | AA | | R | Resistor, 180 1/16W Metal Oxide | |
| R505 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide | |
| R506 | VRS-RG3AB331J+ | AB | | R | Resistor, 330 1W Metal Oxide | [14R2F] |
| R506 | VRS-RG3AB391J+ | AB | | R | Resistor, 390 1W Metal Oxide | [21R2F] |
| R507 | VRN-RL3AB1R0J+ | AB | | R | Resistor, 1 1W Metal Film | |
| R511 | VRS-CY1JF181JY | AA | | R | Resistor, 180 1/16W Metal Oxide | |
| R512 | VRD-RM2HD5R6JY | AA | | R | Resistor, 5.6 1/2W Carbon | [14R2F] |
| R512 | VRD-RM2HD100JY | AA | | R | Resistor, 10 1/2W Carbon | [21R2F] |
| R521 | VRD-RA2BE333JY | AA | | R | Resistor, 33k 1/8W Carbon | [14R2F] |
| R529 | VRD-RA2BE223JY | AA | | R | Resistor, 22k 1/8W Carbon | |
| R530 | VRS-CY1JF334JY | AA | | R | Resistor, 330k 1/16W Metal Oxide | |
| R531 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide | |
| R532 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide | |
| R533 | VRD-RA2BE393JY | AA | | R | Resistor, 39k 1/8W Carbon | |
| R601 | VRS-RG2HC102J+ | AB | | R | Resistor, 1k 1/2W Metal Oxide | |
| R602 | VRD-RA2BE393JY | AA | | R | Resistor, 39k 1/8W Carbon | |
| R603 | VRD-RA2BE273JY | AA | | R | Resistor, 27k 1/8W Carbon | [14R2F] |
| R603 | VRD-RA2BE223JY | AA | | R | Resistor, 22k 1/8W Carbon | [21R2F] |
| R604 | VRD-RA2BE563JY | AA | | R | Resistor, 56k 1/8W Carbon | [14R2F] |
| R604 | VRD-RA2BE393JY | AA | | R | Resistor, 39k 1/8W Carbon | [21R2F] |
| R605 | VRD-RM2HD124JY | AA | | R | Resistor, 120k 1/2W Carbon | [14R2F] |
| R605 | VRD-RM2HD823JY | AA | | R | Resistor, 82k 1/2W Carbon | [21R2F] |
| R606 | VRN-RL3AB1R5J+ | AB | | R | Resistor, 1.5 1W Metal Film | [14R2F] |
| R606 | VRN-RL3DB2R7J+ | AB | | R | Resistor, 2.7 1W Metal Film | [21R2F] |
| R607 | VRD-RM2HD270JY | AA | | R | Resistor, 27 1/2W Carbon | |

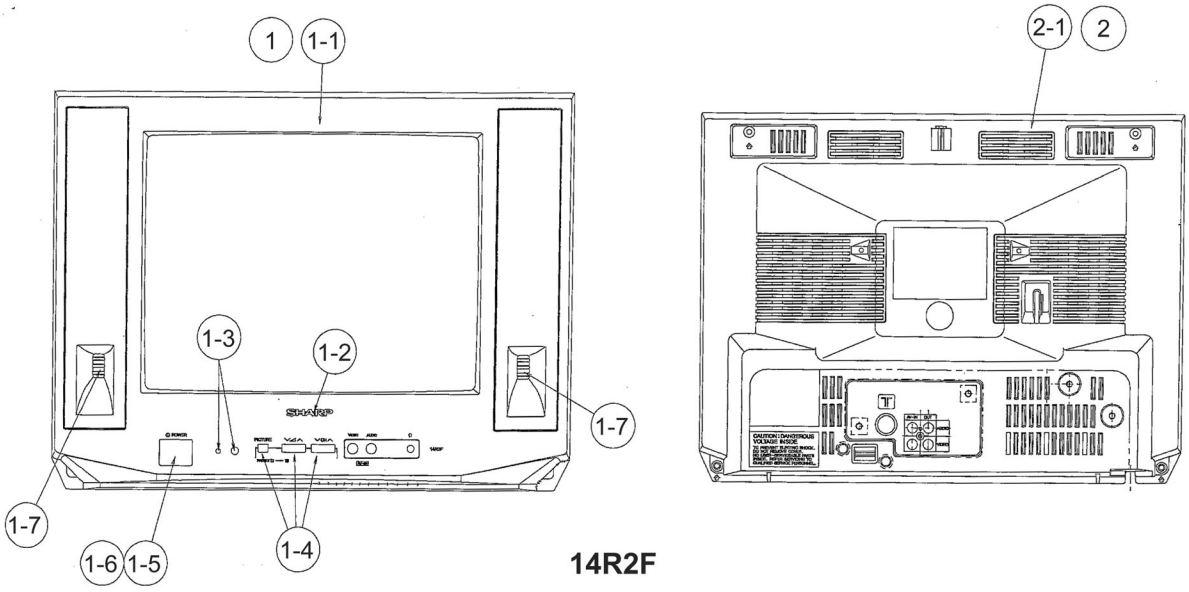
| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[3] MAIN UNIT** | | | | | |
| R609 | VRD-RA2BE154JY | AA | | R | Resistor, 150k 1/8W Carbon |
| R610 | VRD-RA2BE102GY | AB | | R | Resistor, 1k 1/8W Carbon |
| R611 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide |
| R612 | VRS-CY1JF123JY | AA | | R | Resistor, 12k 1/16W Metal Oxide |
| R613 | VRS-CY1JF103JY | AA | | R | Resistor, 10k 1/16W Metal Oxide |
| R614 | VRS-RG2HC150J+ | AB | | R | Resistor, 15 1/2W Metal Oxide [14R2F] |
| R614 | VRS-RG2HC100J+ | AB | | R | Resistor, 10 1/2W Metal Oxide [21R2F] |
| R615 | VRS-RG3DB682J+ | AB | | R | Resistor, 6.8k 2W Metal Oxide |
| R616 | VRN-RL3ABR47J+ | AB | | R | Resistor, 0.47 1W Metal Film |
| R618 | VRS-RG3DB391J+ | AB | | R | Resistor, 390 2W Metal Oxide |
| R619 | VRS-RG3LB103J+ | AC | | R | Resistor, 10k 3W Metal Oxide [14R2F] |
| R619 | VRS-RG3LB562J+ | AC | | R | Resistor, 5.6k 3W Metal Oxide [21R2F] |
| R620 | VRS-RG3AB472J+ | AB | | R | Resistor, 4.7k 1W Metal Oxide |
| R622 | VRD-RA2BE102JY | AA | | R | Resistor, 1k 1/8W Carbon |
| R623 | VRD-RM2HD184JY | AA | | R | Resistor, 180k 1/2W Carbon |
| R624 | VRS-CY1JF472JY | AA | | R | Resistor, 4.7k 1/16W Metal Oxide |
| R625 | VRN-RL3DB8R2J+ | AB | | R | Resistor, 8.2 2W Metal Film [14R2F] |
| R625 | VRN-RL3DB4R7J+ | AB | | R | Resistor, 4.7 2W Metal Film [21R2F] |
| R626 | VRD-RM2HD470JY | AA | | R | Resistor, 47 1/2W Carbon |
| R633 | VRD-RA2BE333JY | AA | | R | Resistor, 33k 1/8W Carbon |
| R634 | VRD-RA2BE103JY | AA | | R | Resistor, 10k 1/8W Carbon |
| R641 | VRN-RL2HCR47J+ | AB | | R | Resistor, 0.47 1/2W Metal Film |
| R651 | VRS-CY1JF223JY | AA | | R | Resistor, 22k 1/16W Metal Oxide |
| R652 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide |
| R653 | VRS-CY1JF822JY | AA | | R | Resistor, 8.2k 1/16W Metal Oxide |
| R654 | VRS-CY1JF273JY | AA | | R | Resistor, 27k 1/16W Metal Oxide |
| R655 | VRS-CY1JF391JY | AA | | R | Resistor, 390 1/16W Metal Oxide |
| R656 | VRS-CY1JF100JY | AA | | R | Resistor, 10 1/16W Metal Oxide |
| R658 | VRD-RA2BE101JY | AA | | R | Resistor, 100 1/8W Carbon |
| R663 | VRD-RA2BE101JY | AA | | R | Resistor, 100 1/8W Carbon |
| R701 | VRW-KQ3NC3R9K | AE | | R | Resistor, 3.9 7.0W Cement |
| R704 | VRN-SV2HC1R0J | AA | | R | Resistor, 1 1/2W Metal Film [21R2F] |
| R707 | VRS-RG3DB104J+ | AB | | R | Resistor, 100k 2W Metal Oxide |
| R708 | VRD-RA2BE681JY | AA | | R | Resistor, 680 1/8W Carbon |
| R709 | VRN-RL3DBR47J+ | AB | | R | Resistor, 0.47 2W Metal Film |
| R710 | VRN-RL3DBR47J+ | AB | | R | Resistor, 0.47 2W Metal Film [14R2F] |
| R710 | VRN-RL3DBR39J+ | AB | | R | Resistor, 0.39 2W Metal Film [21R2F] |
| R711 | VRD-RA2BE682JY | AA | | R | Resistor, 6.8k 1/8W Carbon |
| R712 | VRD-RA2BE152JY | AA | | R | Resistor, 1.5k 1/8W Carbon |
| R716 | VRD-RA2BE562JY | AA | | R | Resistor, 5.6k 1/8W Carbon |
| ⚠ R751 | VRC-UA2HG825KY | AA | | R | Resistor, 8.2M 1/2W Solid |
| ⚠ R752 | VRC-UA2HG825KY | AA | | R | Resistor, 8.2M 1/2W Solid |
| R753 | VRD-RM2HD124JY | AA | | R | Resistor, 120k 1/2W Carbon |
| R754 | VRD-RM2HD150JY | AA | | R | Resistor, 15 1/2W Carbon |
| R755 | VRD-RA2BE221JY | AA | | R | Resistor, 220 1/8W Carbon |
| R756 | VRD-RM2HD270JY | AA | | R | Resistor, 27 1/2W Carbon |
| R757 | VRS-CY1JF151JY | AA | | R | Resistor, 150 1/16W Metal Oxide |
| R801 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide |
| R802 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide |
| R803 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide |
| R804 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide |
| R805 | VRS-CY1JF822JY | AA | | R | Resistor, 8.2k 1/16W Metal Oxide |
| R806 | VRS-CY1JF123JY | AA | | R | Resistor, 12k 1/16W Metal Oxide |
| R807 | VRS-CY1JF103JY | AA | | R | Resistor, 10k 1/16W Metal Oxide |
| R808 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide |
| R809 | VRD-RA2BE224JY | AA | | R | Resistor, 220k 1/8W Carbon |
| R812 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R813 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide |
| R1001 | VRS-CY1JF221JY | AA | | R | Resistor, 220 1/16W Metal Oxide |
| R1002 | VRS-CY1JF331JY | AA | | R | Resistor, 330 1/16W Metal Oxide |
| R1003 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide |
| R1004 | VRS-CY1JF821JY | AA | | R | Resistor, 820 1/16W Metal Oxide |
| R1005 | VRS-CY1JF181JY | AA | | R | Resistor, 180 1/16W Metal Oxide |
| R1011 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1012 | VRD-RA2BE271JY | AA | | R | Resistor, 270 1/8W Carbon |
| R1013 | VRD-RA2BE101JY | AA | | R | Resistor, 100 1/8W Carbon |
| R1014 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1015 | VRS-CY1JF332JY | AA | | R | Resistor, 3.3k 1/16W Metal Oxide |
| R1016 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1017 | VRS-CY1JF332JY | AA | | R | Resistor, 3.3k 1/16W Metal Oxide |
| R1019 | VRS-CY1JF392JY | AA | | R | Resistor, 3.9k 1/16W Metal Oxide |
| R1020 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1021 | VRS-CY1JF153JY | AA | | R | Resistor, 15k 1/16W Metal Oxide |
| R1022 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1023 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1024 | VRS-CY1JF122JY | AA | | R | Resistor, 1.2k 1/16W Metal Oxide |
| R1025 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1026 | VRS-CY1JF224JY | AA | | R | Resistor, 220k 1/16W Metal Oxide |
| R1028 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1030 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide |
| R1031 | VRD-RA2BE562JY | AA | | R | Resistor, 5.6k 1/8W Carbon |
| R1032 | VRS-CY1JF332JY | AA | | R | Resistor, 3.3k 1/16W Metal Oxide |
| R1034 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1035 | VRS-CY1JF332JY | AA | | R | Resistor, 3.3k 1/16W Metal Oxide |
| R1036 | VRS-CY1JF332JY | AA | | R | Resistor, 3.3k 1/16W Metal Oxide |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[3] MAIN UNIT** | | | | | |
| R1037 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1038 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1039 | VRS-CY1JF223JY | AA | | R | Resistor, 22k 1/16W Metal Oxide |
| R1040 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1041 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1042 | VRD-RA2BE101JY | AA | | R | Resistor, 100 1/8W Carbon |
| R1046 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1048 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide |
| R1050 | VRS-CY1JF392JY | AA | | R | Resistor, 3.9k 1/16W Metal Oxide |
| R1051 | VRS-CY1JF683JY | AA | | R | Resistor, 68k 1/16W Metal Oxide |
| R1072 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| R1073 | VRS-CY1JF101JY | AA | | R | Resistor, 100 1/16W Metal Oxide |
| RJ10 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ13 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ14 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ15 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ16 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ17 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ19 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ2 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ21 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ24 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ26 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ28 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ32 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ33 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ35 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ37 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ4 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ41 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ42 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ43 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ44 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ45 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ48 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ49 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ51 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ52 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ53 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ56 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ71 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ73 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ74 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ75 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ77 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ78 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ81 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ83 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ88 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ9 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ92 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| RJ93 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide |
| S1001 | QSW-K0003AJZZ+ | AB | | R | Switch, CH-Up |
| S1002 | QSW-K0003AJZZ+ | AB | | R | Switch, CH-Down |
| S1003 | QSW-K0003AJZZ+ | AB | | R | Switch, VOL-Up |
| S1004 | QSW-K0003AJZZ+ | AB | | R | Switch, VOL-Down |
| S1005 | QSW-K0003AJZZ+ | AB | | R | Switch, Preset |
| ⚠ S702 | QSW-PA006WJZZ | AG | | R | Switch, Power |
| ⚠ F701 | QFS-C3229CEZZ | AD | | R | Fuse, 250V 3.15A |
| FB601 | RBLN-0091GEZZY | AB | | R | Balun |
| ⚠ FH701 | QFSHD1013CEZZ+ | AC | | R | Fuse Holder |
| ⚠ FH702 | QFSHD1014CEZZ+ | AC | | R | Fuse Holder |
| J402 | QJAKE0210CE04 | AC | | R | Jack |
| J403 | QJAKE0210CE09 | AC | | R | Jack, AV-2 In |
| J409 | QJAKHA004WJZZ | AE | | R | Jack, AV-1 In |
| P302 | QPLGNA109WJZZ | AB | | R | Plug, 4Pin (S) |
| P303 | QPLGNA110WJZZ | AB | | R | Plug, 5Pin (HP) |
| P601 | QPLGN0660CEZZ | AC | | R | Plug, 6Pin (F) |
| P602 | LHLDW1104PEZZ | AB | | R | Holder (H) |
| P603 | QPLGNA108WJZZ | AB | | R | Plug, 3Pin (TP651-3) |
| P701 | QPLGN0260CEZZ | AC | | R | Plug, 2Pin (M) |
| P702 | QPLGN0269GEZZ | AB | | R | Plug, 2Pin (K) |
| P1001 | LHLDW1105PEZZ | AB | | R | Holder (K) |
| P1002 | QPLGNA110WJZZ | AB | | R | Plug, 5Pin (BC) |
| RMC1001 | RRMCUA009WJZZ | AF | | R | Remote Receiver |
| RDA602 | PRDAR0224PEFW | AF | | R | Heat Sink, for Q602 [21R2F] |
| RDA302 | PRDAR0340PEFW | AE | | R | Heat Sink, for IC302 |
| RDA501 | PRDAR0118GJFW | AD | | R | Heat Sink, for IC501 |
| RDA701 | PRDARA028WJFW | AE | | R | Heat Sink, for IC701 |
| TP201 | QLUGP0102PEZZ | AA | | R | Lug |
| | LX-BZ3100CEFD | AA | | R | Screw |
| | LX-BZ3100CEFD | AA | | R | Screw |
| | LX-BZ3049GEFD | AA | | R | Screw |
| | LHLDP1066PE00 | AC | | R | Holder |
| | QCNW-A293WJZZ | AC | | R | Connecting Cord [14R2F] |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION | |
|---|---|---|---|---|---|---|
| **[3] MAIN UNIT** | | | | | | |
| | QCNW-A230WJZZ | AD | | R | Connecting Cord | [21R2F] |
| | QCNW-A343WJZZ | AC | | R | Connecting Cord | [14R2F] |
| | QCNW-A720WJZZ | AD | | R | Connecting Cord | [21R2F] |
| **[4] CRT UNIT** | | | | | | |
| | | | | | PWB-B: DUNTKA542WEG3(14R2F) | |
| | | | | | PWB-B: DUNTKA542WEG4(21R2F) | |
| Q870 | RH-TX0110BMZZ+ | AC | | R | High Voltage Transistor, BF422 | |
| Q871 | RH-TX0110BMZZ+ | AC | | R | High Voltage Transistor, BF422 | |
| Q872 | RH-TX0110BMZZ+ | AC | | R | High Voltage Transistor, BF422 | |
| Q883 | RH-TX0124BMZZ+ | AC | | R | High Voltage Transistor, BF421 | |
| Q885 | RH-TX0124BMZZ+ | AC | | R | High Voltage Transistor, BF421 | |
| Q887 | RH-TX0124BMZZ+ | AC | | R | High Voltage Transistor, BF421 | |
| D884 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| D885 | VHD1SS133++-1Y | AA | | R | Diode, 1SS133 | |
| D881 | VHD1SS244//-1Y | AB | | R | Diode, 1SS244 | |
| D882 | VHD1SS244//-1Y | AB | | R | Diode, 1SS244 | |
| D883 | VHD1SS244//-1Y | AB | | R | Diode, 1SS244 | |
| D886 | VHD1SS82///1AY | AC | | R | Diode, 1SS82 | |
| D887 | VHD1SS82///1AY | AC | | R | Diode, 1SS82 | |
| D888 | VHD1SS82///1AY | AC | | R | Diode, 1SS82 | |
| C878 | VCEA0A2EW106M+ | AD | | R | Capacitor, 10 250V Electrolytic | |
| C881 | VCKYPA1HB471K+ | AA | | R | Capacitor, 470p 50V Ceramic | |
| C882 | VCKYPA1HB471K+ | AA | | R | Capacitor, 470p 50V Ceramic | |
| C886 | VCKYPA2HB102K+ | AA | | R | Capacitor, 1000p 500V Ceramic | |
| C875 | VCKYPA2HB102K+ | AA | | R | Capacitor, 1000p 500V Ceramic | |
| C871 | VCCCCY1HH471JY | AA | | R | Capacitor, 470p 50V Ceramic | |
| C872 | VCCCCY1HH471JY | AA | | R | Capacitor, 470p 50V Ceramic | [14R2F] |
| C872 | VCCCCY1HH391JY | AA | | R | Capacitor, 390p 50V Ceramic | [21R2F CRT-1] |
| C872 | VCCCCY1HH471JY | AA | | R | Capacitor, 470p 50V Ceramic | [21R2F CRT-2] |
| C873 | VCCCCY1HH471JY | AA | | R | Capacitor, 470p 50V Ceramic | |
| C876 | RC-KZ0150CEZZ | AB | | R | Capacitor, 1000p 3.15kV Ceramic | |
| C880 | VCCCCY1HH471JY | AA | | R | Capacitor, 470p 50V Ceramic | |
| R882 | VRS-VU3DE153J | AA | | R | Resistor, 15k 2W Metal Oxide | [21R2F] |
| R883 | VRD-RM2HD272JY | AA | | R | Resistor, 2.7k 1/2W Carbon | |
| R884 | VRS-VU3DE153J | AA | | R | Resistor, 15k 2W Metal Oxide | [21R2F] |
| R885 | VRD-RM2HD272JY | AA | | R | Resistor, 2.7k 1/2W Carbon | |
| R886 | VRS-VU3DE153J | AA | | R | Resistor, 15k 2W Metal Oxide | [21R2F] |
| R887 | VRD-RM2HD272JY | AA | | R | Resistor, 2.7k 1/2W Carbon | |
| R892 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide | |
| R893 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide | |
| R894 | VRS-CY1JF102JY | AA | | R | Resistor, 1k 1/16W Metal Oxide | |
| R879 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | |
| R880 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | |
| R881 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | |
| R882 | VRS-VV3DB153J | AA | | R | Resistor, 15k 2W Metal Oxide | [14R2F] |
| R884 | VRS-VV3DB153J | AA | | R | Resistor, 15k 2W Metal Oxide | [14R2F] |
| R886 | VRS-VV3DB153J | AA | | R | Resistor, 15k 2W Metal Oxide | [14R2F] |
| R888 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | [21R2F CRT-1] |
| R895 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | [21R2F CRT-2] |
| R896 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | [21R2F CRT-2] |
| R898 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | [21R2F CRT-1] |
| R899 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | |
| RJ60 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide | |
| RJ61 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide | |
| RJ62 | VRS-CY1JF000JY | AA | | R | Resistor, 0 1/16W Metal Oxide | |
| P884 | LHLDW1104PEZZ | AB | | R | Holder (H) | |
| P882 | LHLDW1105PEZZ | AB | | R | Holder (K) | |
| SC881 | QSOCV0017PEZZ | AF | | R | CRT Socket | [14R2F] |
| SC881 | QSOCVA001WJZZ | AF | | R | CRT Socket | [21R2F CRT-1] |
| SC883 | QSOCV0931CEZZ | AK | | R | CRT Socket | [21R2F CRT-2] |
| **[5] HEADPHONE UNIT** | | | | | | |
| | | | | | PWB-C: DUNTKA543WEB7(14R2F) | |
| | | | | | PWB-C: DUNTKA543WEB8(21R2F) | |
| R370 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | |
| R371 | VRS-CY1JF471JY | AA | | R | Resistor, 470 1/16W Metal Oxide | |
| J351 | QJAKJ0101SEZZ | AE | | R | Jack, Headphone | |
| P351 | QPLGNA109WJZZ | AB | | R | Plug, 4Pin (HP) | |
| | QCNW-2452PEZZ | AE | | R | HP Wire | |
| **[6] MISCELLANEOUS PARTS** | | | | | | |
| ⚠ ACC701 | QACCZA019WJPZ | AH | | R | AC Cord | |
| SP301 | VSP9050PB53WA | AH | | R | Speaker | |
| SP302 | VSP9050PB53WA | AH | | R | Speaker | |
| | QCNW-C007WJZZ | AF | | R | Connecting Cord | [14R2F] |
| | QCNW-C008WJZZ | AF | | R | Connecting Cord | [21R2F] |
| | TLABK0002PEZZ | AB | | R | Serial No. Label | [14R2F] |
| | TLABKA008WJZZ | AA | | R | Bar Code Label | |
| | TLABMB039WJZZ | AC | | R | Label | [14R2F] |
| | TLABMB069WJZZ | AC | | R | Label | [21R2F] |
| | TLABN0001PEZZ | AD | | R | No. Card | [14R2F] |
| | LHLDK0024PEZZ | AC | | R | Holder | |
| | LHLDW1002PEZZ | AB | | R | Holder | [14R2F] |

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[6] MISCELLANEOUS PARTS** | | | | | |
| | LHLDW1009PEZZ | AA | | R | Holder [21R2F] |
| | LHLDW1033PEZZ | AA | | R | Holder |
| | LHLDW1047PEZZ | AB | | R | Holder [21R2F] |
| | LHLDW1060PEZZ | AA | | R | Holder |
| | LHLDWA019WJKZ | AB | | R | Holder |
| | LHLDZ0063PEZZ | AD | | R | Holder |
| | LHLDZ0133PEZZ | AC | | R | Holder |
| | LX-TZ0013PEFD | AD | | R | Screw [14R2F] |
| | LX-TZ3004CEFD | AA | | R | Screw |
| | LX-TZ3011CEFD | AA | | R | Screw |
| | LX-TZA003WJFD | AF | | R | Screw [21R2F] |
| | LX-WZ3050CEFD | AA | | R | Washer |
| | LX-WZ0015PEFD | AB | | R | Washer [21R2F] |
| | XTASD40P20000 | AA | | R | Screw |
| **[7] SUPPLIED ACCESSORIES** | | | | | |
| | QANTRA002WJZZ | AL | | R | Rod Antenna [14R2F] |
| | QPLGJ0113CEZZ | AG | | R | Plug [14R2F] |
| | RRMCGA262WJSA | AN | | R | Infrared R-C |
| | TiNS-B342WJZZ | AG | | R | Instruction Book |
| | TMAPCA070WJZZ | AC | | R | Circuit Diagram [14R2F] |
| | TMAPCA071WJZZ | AC | | R | Circuit Diagram [21R2F] |

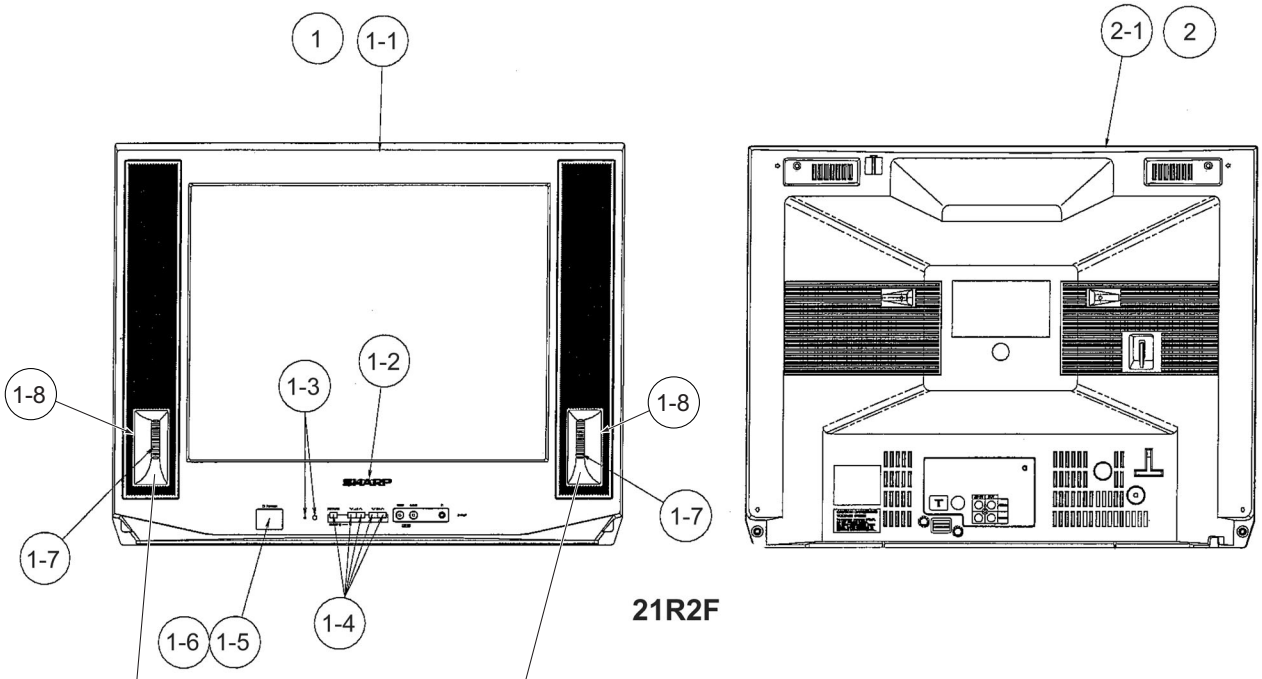
# [8] CABINET PARTS(14R2F)

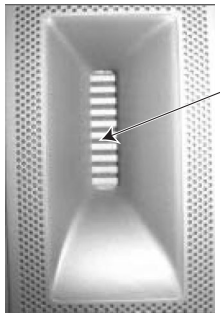



**14R2F**

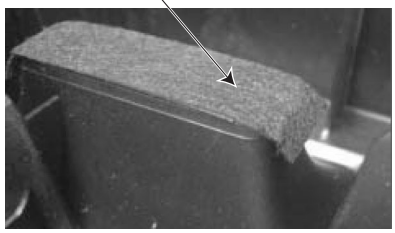
| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[8] CABINET PARTS(14R2F)** | | | | | |
| 1 | CCABAA616WEV0 | | | R | Front Cabinet Ass'y |
| 1-1 | Not Available | - | | - | Front Cabinet |
| 1-2 | HBDGB0019PESB | AD | | R | SHARP Badge |
| 1-3 | GCOVAA884WJSA | | | R | RC/LED Cover |
| 1-4 | JBTN-A312WJSA | | | R | Control Button |
| 1-5 | JBTN-A313WJSA | | | R | Power Button |
| 1-6 | MSPRC0005PEFW | AB | | R | Power Button Spring |
| 1-7 | PSPAHA189WJ00 | AB | | R | Speaker Port Spacer |
| 2 | CCABBA096WEV1 | AX | | R | Rear Cabinet Ass'y |
| 2-1 | Not Available | - | | - | Rear Cabinet |

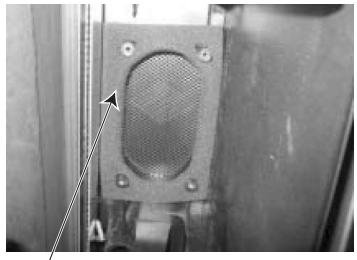
# [9] CABINET PARTS(21R2F)



(1-7) Spacer (PSPAHA441WJ00)
sticking position!
( Both side L & R )



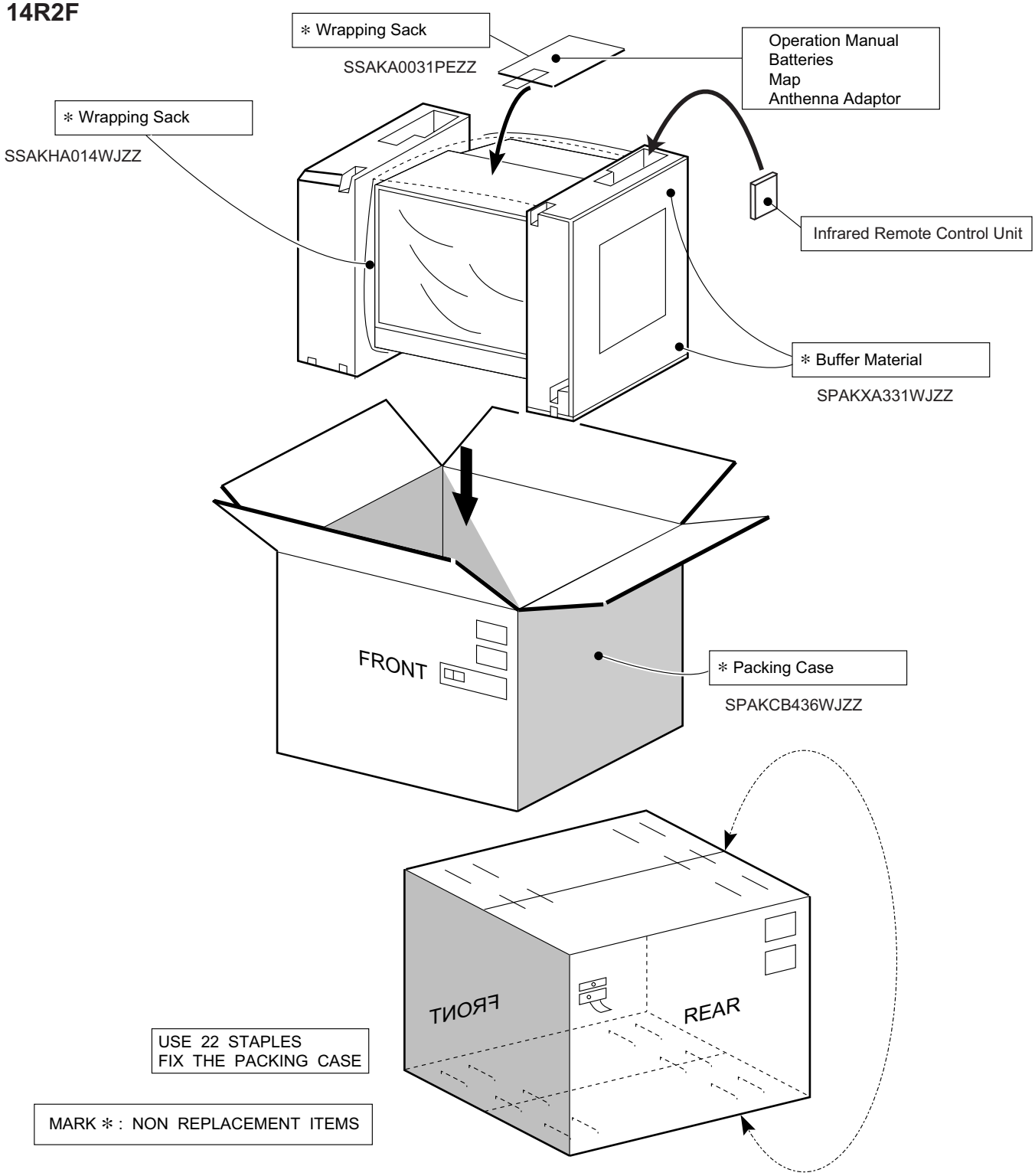


(1-8) Molt Plane (PMLT-A169WJZZ)
sticking position!
( Both side L & R )

| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[9] CABINET PARTS(21R2F)** | | | | | |
| 1 | CCABAA614WEV0 | | | R | Front Cabinet Ass'y |
| 1-1 | Not Available | - | | - | Front Cabinet |
| 1-2 | HBDGB0015PESB | AE | | R | SHARP Badge |
| 1-3 | GCOVAA908WJSA | | | R | RC/LED Cover |
| 1-4 | JBTN-A320WJSA | | | R | Control Button |
| 1-5 | JBTN-A319WJSA | | | R | Power Button |
| 1-6 | MSPRC0005PEFW | AB | | R | Power Button Spring |
| 1-7 | PSPAHA441WJ00 | AB | | R | Speaker Port Spacer |
| 1-8 | PMLT-A169WJZZ | | | R | Molt Plane |
| 2 | CCABBA035WEV2 | BA | | R | Rear Cabinet Ass'y |
| 2-1 | Not Available | - | | - | Front Cabinet |

# [10] PACKING PARTS(14R2F)

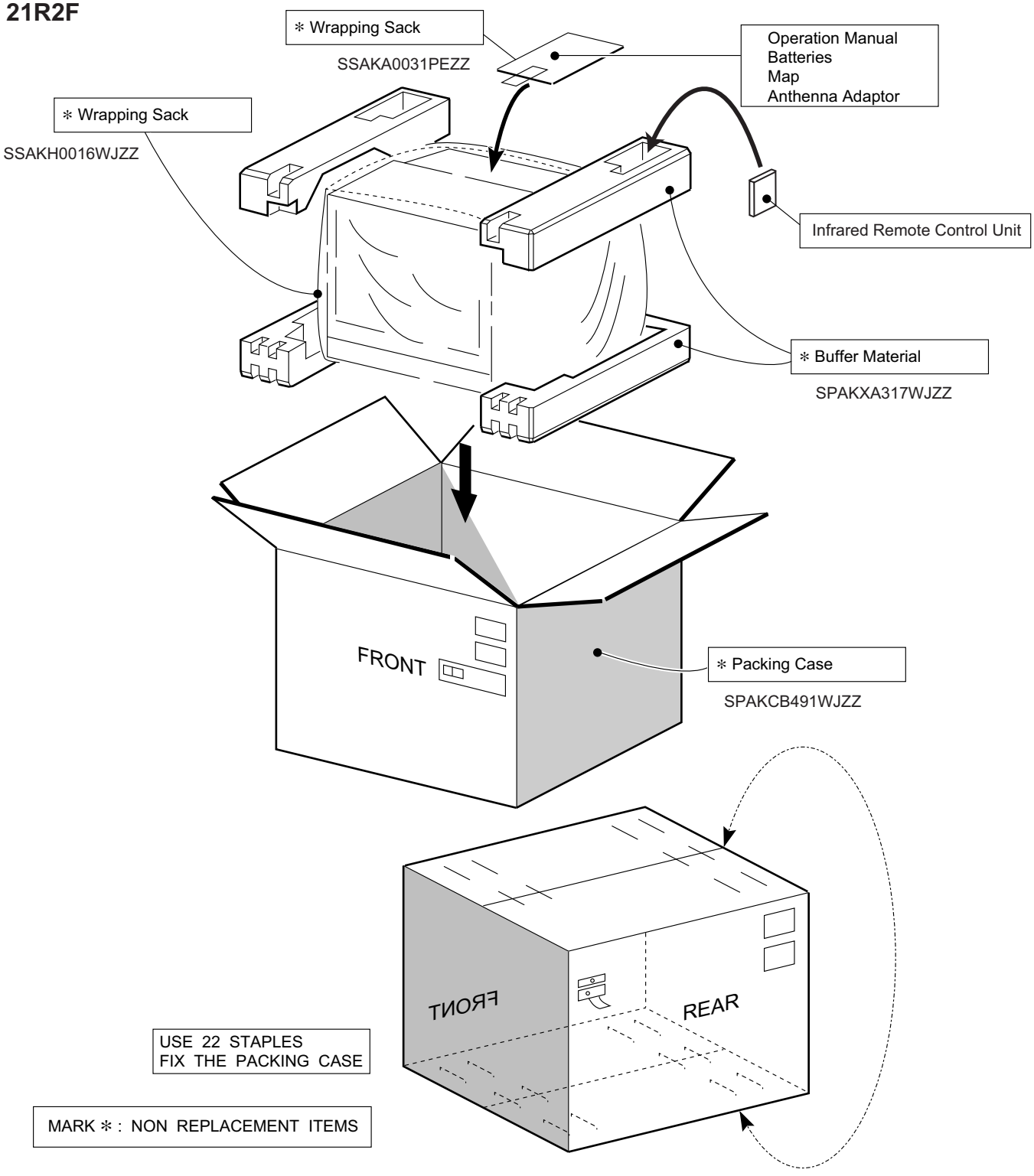
## 14R2F




| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[10] PACKING PARTS(14R2F)** | | | | | |
| | | | | | (NOT REPLACEMENT ITEM) |
| | SSAKA0031PEZZ | - | | - | Polyethylene Bag |
| | SPAKCB436WJZZ | - | | - | Packing Case |
| | SPAKXA331WJZZ | - | | - | Packing Add. |
| | SSAKHA014WJZZ | - | | - | Polyethylene Bag |

# [11] PACKING PARTS(21R2F)

## 21R2F




| NO. | PARTS CODE | PRICE RANK | NEW MARK | PART RANK | DESCRIPTION |
|---|---|---|---|---|---|
| **[11] PACKING PARTS(21R2F)** | | | | | |
| | | | | | (NOT REPLACEMENT ITEM) |
| | SSAKA0031PEZZ | - | | - | Polyethylene Bag |
| | SPAKCB491WJZZ | - | | - | Packing Case |
| | SPAKXA317WJZZ | - | | - | Packing Add. |
| | SSAKHA016WJZZ | - | | - | Polyethylene Bag |

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